THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

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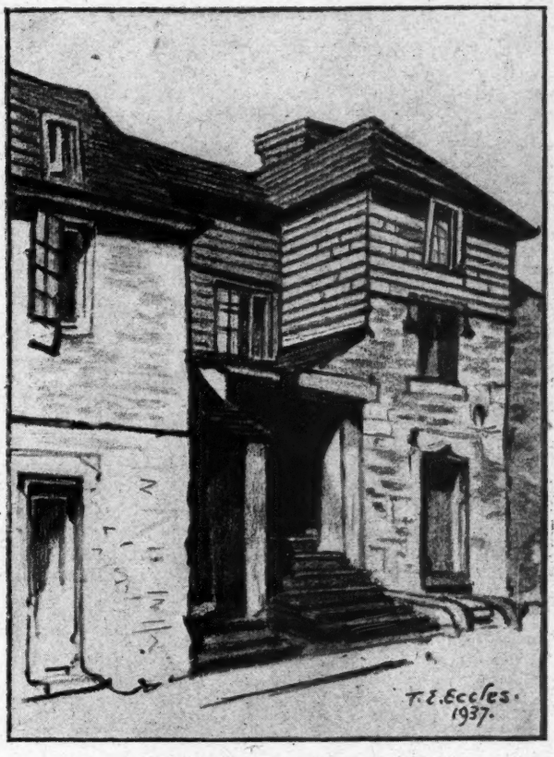


THE ABBEY HOUSE, PADSTOW.

FROM A DRAWING BY MR. T. E. ECCLES, F.R.I.B.A.

MEETINGS

Friday, March 25.

Architects' Registration Council. Sixth Annual Meeting. 68, Portland-place, W.1. 4 p.m.

Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects. Annual Dinner. The "George" Hotel, Luton. 7 p.m.

Monday-Saturday, March 28-April 2.

North-Western Educational Association for the Building Industry. Timber Research Exhibition. College of Technology, Manchester. The Exhibition will be opened by the Rt. Hon. the Lord Mayor of Manchester on Monday, March 28, 7 p.m.; followed by a lecture by Mr. C. J. Chaplin on "The Strength of Structural Timbers in Relation to Quality." The Exhibition will be open each day from 2 p.m. to 9.30 p.m. Thursday, March 31: Mr. R. A. G. Knight on "The Moisture Content of Timber in Use, with special reference to New Buildings," and Mr. W. P. K. Findlay on "The Importance of the Moisture in Timber in Relation to Decay," 7.45 p.m.; Saturday, April 2: Mr. H. A. Cox on "The Exhibition and the Work of the Laboratory," 3 p.m.

Monday, March 28.

Institution of Civil Engineers (Northern Ireland Association).—Mr. R. J. Sullivan, on "Notes on Live Loading for Bridges." Queen's University, Belfast. 6.15 p.m.

Tuesday, March 29.

Institution of Civil Engineers. Messrs. M. R. Atkins and D. H. Remfry on "The Reconstruction of Main Road Bridges, Calcutta." 6 p.m.

Illuminating Engineering Society. Public discussion on "Lighting Provisions embodied in New Factory Act." At Home Office Industrial Museum, Horseferry-road, S.W.1. 6.30 p.m.

Institution of Civil Engineers (Newcastle-upon-Tyne and District Association). Mr. J. Sopp on "Notes on the Design of Reinforced-Concrete Frames." North of England Institute of Mining and Mechanical Engineers, Westgate-road, Newcastle. 7.30 p.m.

Housing Centre. Tuesday Lunches: Miss E. Murray on "House Property Management." 1 p.m.

Wednesday, March 30.

Institution of Civil Engineers. Mr. E. F. Humphries on "Design: With particular reference to King's Cross Sewer Diversion and Sloane-square Station Reconstruction." 6.15 p.m.

Institution of Civil Engineers (Manchester and District Association). Mr. W. F. Gardner on "Reinforced-Concrete Road Viaduct above and along the course of the River Mersey, Stockport." 36, George-street, Manchester. 6.45 p.m.

Institution of Civil Engineers (South Wales and Monmouthshire Association). Mr. Brysson Cunningham on "Estuary Channels and Embankments." The Engineers' Institute, Park-place, Cardiff. 6.30 p.m.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "Modern Architecture." 6 p.m.

Thursday, March 31.

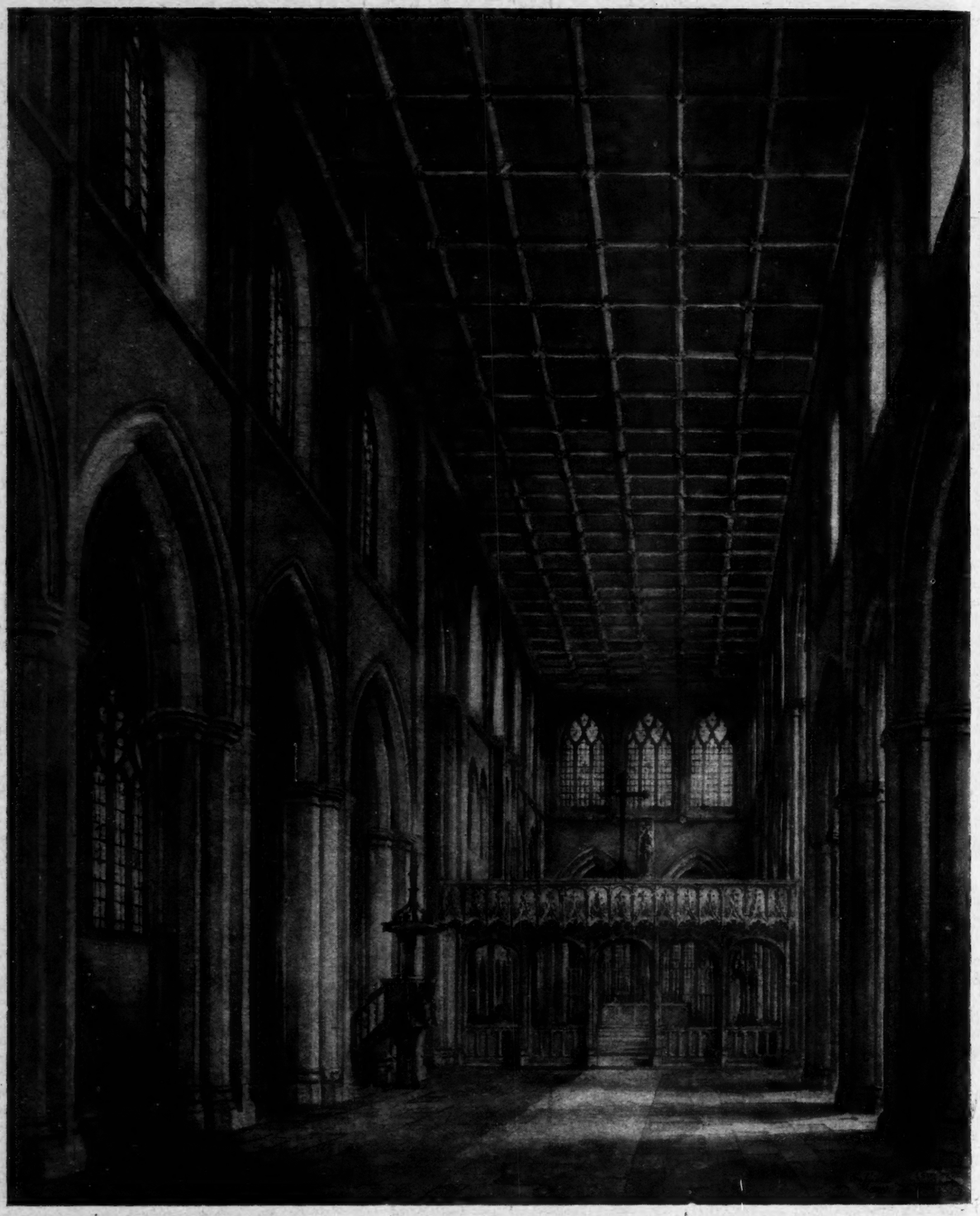
Architecture Club. Twenty-eighth dinner. Savoy Hotel. 7.45 p.m. The subject of the dinner will be "London's Waterfront through the Ages." Mr. Oswald Barron will be taking the pointer during the showing of the slides. Other speakers will include Sir Giles Gilbert Scott, Mr. A. G. MacDonnell and Mr. Clifford Bax.

Auctioneers' and Estate Agents' Institute. Mr. H. Mordaunt Rogers on "The Making of a Connoisseur," Part 17—The Appraisement of Pictures: Pitfalls and Problems." 7 p.m.

Institution of Heating and Ventilating Engineers and Institute of Fuel. Mr. S. Livingstone Smith and Professor C. H. Lander on "A Comparison of the Cost of Heat Supply by Electrode Boiler or by Coke Boiler to the same Group of Buildings." Institution of Mechanical Engineers, Storey's Gate, Westminster, S.W.1. 6 p.m.

Institution of Civil Engineers (Bristol and District Association). Mr. Brysson Cunningham on "Estuary Channels and Embankments." Royal Hotel, College Green, Bristol. 6.30 p.m.

Society of Antiquaries. Sir Cyril Fox on "Two Bronze Age Cairns in Glamorgan." 8.30 p.m.



SHEFFIELD CATHEDRAL EXTENSION.

A perspective of the nave and choir proposed to be added to this Cathedral Church, to designs by SIR CHARLES A. NICHOLSON and MR. T. J. RUSHTON. An article on the work of enlargement begins on page 586.

TOPICS OF THE DAY

"SPECULATIVE HOUSE BUILDING."

MR. STANLEY RAMSEY'S paper on "Speculative House Building," read at the R.I.B.A. on Monday evening (a report appears on page 601), provided a very thoughtful survey of a by no means simple subject; the lecturer showed convincingly, in fact, that there is a good deal more in it than meets the eye. We cannot help feeling, however, that he was perhaps a little too lenient towards the building societies and the jerry builders, and a little too severe on the architects in apportioning blame for the "admittedly low standard of much of the post-war [and surely pre-war? Ed.] domestic building."

Before the war architects were allowed hardly any part in the design of speculatively-built houses, and since the war, except in the case of local authority schemes, they have had but little more; though we are glad to note Mr. Ramsey's statement that of the plans submitted to building societies to-day some 20 per cent. are designed by architects as compared with some 5 or 10 per cent. ten years ago. Presumably some builders have discovered that it "pays" to employ architects.

The fact is, of course, that speculative house builders in the past did not think it necessary to employ competent architects. They knew the type of dwelling that would sell readily and they provided it. This is a sad commentary on the low level of public taste, but it must be remembered that the builders were providing a commodity at a low price, and, as the lecturer said, "it is unreasonable to expect a Rolls-Royce for the price of a Ford."

Where, however, we have good reason to censure the speculative house builder (in the past, no doubt, more than to-day) is for his pandering to the public taste for the shoddy and meretricious—his expenditure of money on such things as sham half-timbering, ornamental gables, over-elaborate wooden porches, pretty-pretty coloured glass in doors and windows, etc. ("selling features," we believe they are called)—money that would have been far better spent on good design and improving the structure of the house. That there are now distinct signs of improvement is all to the good, and we trust that the lecturer's suggestions for further progress may be vigorously followed up. Architects are more than ready to do their part.

HARDWICK'S DORIC PORTAL.

FEW people are unaware of, and fewer architects still insensitive to, the architectural claims of Philip Hardwick's Doric Portal at Euston L.M.S. Station. According to present plans the "Arch," as it is often called, will be demolished to allow of the replanning of the station, now being undertaken to the plans of Mr. Percy Thomas and Mr. W. H. Hamlyn. From the fact that there has been a fresh volume of appeals for its preservation we conclude that the plans for the new Euston are approaching the stage when they will go before the Royal Fine Art Commission for approval.

In this age of disappearing landmarks, the contemplation of the loss of Hardwick's great effort is not pleasant; it would seem, none the less, that its removal (though not its destruction) is inevitable. Hardwick's Portal is not an insignificant feature, either in size or in architectural character, and we think that the task of "marrying" the Portal to new buildings forming the main terminus of a modern railway system is one which no architect owing a duty to himself and to his age would for choice accept. This seems to us to be the only point that matters, though it is worth recalling that the Portal is not axially placed in relation to the station.

The structure, then, may go, but that is not to say that it must disappear. As Professor A. E. Richardson, on behalf of the Georgian Group, has pointed out, it would be a comparatively simple matter to dismantle (the great columns are hollow and full information of the structure exists) and re-erect it. Some years ago Professor Reilly suggested Liverpool Docks as a suitable site, but whether there or elsewhere, we trust that the railway company—as owners of what, to all intents, is a national monument—will realise the responsibility which accompanies possession of the Portal and take adequate steps for its perpetual preservation.

ARCHITECTS AND LOCAL GOVERNMENT.

THERE is no doubt that a local authority's personnel is materially enriched by the presence of an architect in a non-official capacity. Planning becomes an ever-increasing part of local government duties, and is yet one of the most difficult branches of civic life for the layman to appreciate.

Unfortunately the architect in practice rarely retires until he is physically and mentally too tired to continue in the vortex of activity, and at that stage he cannot give of his best to the public service. While he is active and pursuing his practice, he is generally too busy to spare time for the increasingly exacting duties of council work.

Alderman Culpin, the newly-elected Chairman of the L.C.C., is one of those exceptions to these disabling rules, for he has already proved himself alert and vigorous in public affairs, and has spared neither time nor trouble in the cause of good local government. We feel that the London County Council has made an ideal choice for this responsible position, and that the profession and the public owe such men a very deep debt of gratitude for their devotion to duties which are by their nature onerous and profitless, other than by the personal satisfaction of a good thing well done. But so long as the complications of local government continue to accumulate, and the pressure of practice continues to be exacting, we fear there will be fewer and fewer of the profession to take up the task.

ARCHITECTS AND BRICKS.

NO one who walks or drives South of the Trent can have failed to remark that brick, as a material for facing buildings other than houses, is coming once more into its own. No doubt the questions of cost, as compared with stone facings, and of weathering qualities, as compared with reinforced concrete, have a bearing on this development, but the opportunities for achieving colour and interesting textures also make an appeal to many architects to-day, though the value of Portland and other established stones is not to be forgotten or underestimated.

These thoughts spring from hearing a speech by Mr. C. H. James, A.R.A., to the South Eastern Federation of the Building and Engineering Brick Trade on Monday (reported elsewhere), in the course of which Mr. James gave an interesting summary of the qualities which the architect demands to-day of brick; these were, primarily, reasonable squareness, uniformity of colour, and a size which would permit four courses to the foot.

With regard to the importation of Dutch bricks, Mr. James commented on their pleasant size and also on the fact that they were being produced in interesting new shades. Why, he asks, do not English manufacturers meet this demand? We think that they might well do so, though we appreciate the fact that the demand in this country is not yet very appreciable. This may be a case where anticipation of the demand might be well repaid, though the lower price of foreign bricks—due, in part, to lower wage and transport costs—is not a negligible factor.

NOTES AND NEWS

Historic Railway Buildings : An L.N.E.R. Preservation Committee.

At the London Society's annual meeting, Mr. W. R. Davidge expressed the hope that Hardwick's Doric Portal at Euston—which at present is likely to be demolished consequent on the rebuilding of the terminus—might be saved. We now learn that the L.N.E.R. has formed a small committee to consider the possibility of preserving any buildings upon its system that possess historic railway interest. Some of the earliest railways in the world were incorporated in the constituent companies of the L.N.E.R., especially in the counties of Yorkshire, Durham and Northumberland, which were served by the old North Eastern Railway. It is in this district that the committee will concentrate its attention for the time being. Though not on the L.N.E.R. system, the Euston Portal is an example of topical interest. It will have been noticed that Professor A. E. Richardson, A.R.A., has been calling in the daily Press for the preservation of the Portal. Since the plans for the new station are to be submitted to the Royal Fine Art Commission—of which the Professor is a member—it seems probable that the matter will be fully ventilated.

Editorial Comment will be found on page 579.

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An L.C.C. Nursery School: Private Architect to be Appointed.

On four occasions since 1935 the London County Council has authorised, as experiments, the employment of architects in private practice to design and supervise the erection of elementary schools to be built by the Council in its area. A similar experiment is to be made as regards one of the new nursery schools contemplated in the programme, 1938-41, "on the understanding that expenditure in excess of the normal is not thereby involved."

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New Municipal Buildings : Potters Bar.

The Potters Bar Urban District Council have appointed, from a number of architects, Messrs. Marshall and Tweedy, FF.R.I.B.A., 100, New Cavendish-street, London, W.1, to design the new civic centre. The Council has decided to proceed with the erection of municipal offices, fire station, ambulance station and mortuary, the offices to be designed to permit of extensions, and the general layout to permit inclusion of public hall and library. The architects have also been selected by the Hospital Committee to design the new cottage hospital, the work to proceed immediately. The quantity surveyors appointed by the Council are Messrs. Kenneth G. Higgins and Partners, Eagle House, Jermyn-street, London, S.W.1.

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A Metropolitan Brick Building : Tylers' and Bricklayers' Company's Award.

We are glad to see that the Tylers' and Bricklayers' Company, one of the oldest of the City Guilds, continues to take an interest in good brickwork in London. On another page in this issue will be found the conditions of entry for the Company's Annual Competition for medals presented for the best designed and carried out piece of brickwork in the London area. We note it is open to anyone to nominate a building, whether it be his own work or that of another architect.

A GRANDSTAND AT LUCERNE.

An attractive grandstand at the Sportsplatz, Lucerne. The underside of the roof is painted sky blue.

The R.I.B.A. Secretary "On the Air."

The Secretary of the Royal Institute of British Architects is, as those who know him are fully aware, a man of many parts; he is shortly to appear in a comparatively new role—that of broadcaster—when he will speak on April 1 in the series "I Was There." We say "comparatively" because this will not be Sir Ian MacAlister's initial effort at broadcasting; some months ago he spoke on Mark Twain.

The subject of Sir Ian's talk will be "Dreyfus." Though quite obviously he was not present during the whole of the affair, which dragged on well into six years, he had the good fortune to be in Rennes in 1899 when the curtain rose on the penultimate act of Zola's last and greatest work—the retrial, at which the name of Dreyfus was cleared.

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The New York World Fair : The British Pavilion.

The design for the British Pavilion at the New York World Fair is, we learn, to be submitted to the Royal Fine Art Commission for approval. Mr. Howard Robertson, S.A.D.G., F.R.I.B.A., of Messrs. Stanley Hall and Easton and Robertson, the architects for the pavilion, left for New York on Wednesday to inspect the site. The Fair is due to open on April 30, 1939.

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An Hon. A.R.I.B.A.: Mrs. Quennell Elected.

The list of new Honorary Associates of the Royal Institute of British Architects, which appears elsewhere in this issue, contains the name of Mrs. Marjorie Quennell. This is the first time that a woman has been so honoured, and a worthy choice it is, inasmuch as Mrs. Quennell collaborated with her husband, the late C. H. B. Quennell, in the remarkable series of books—the "History of Everyday Things"—which were primarily intended for children, but proved equally popular with adults.

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London Traffic and Underground Roads.

Mr. John Murray, F.R.I.B.A., F.S.I., in a communication headed "Solution of the Traffic Problem in London by Underground Roads," writes: "The indications published recently of the report of Sir Charles Bressey represent one more opinion about this pressing and intricate problem, but I venture to submit that there are other important aspects of it that are worthy of further speedy and unbiased consideration by everyone concerned. As the traffic congestion continues to increase so much and our streets were not designed for modern motor traffic it is clear that none of them can now be converted for the traffic's adequate accommodation without great delay by demolishing extensive properties and producing great dislocation of trade which would incur a vast and, I submit, an impossible cost to the public. But cost must dominate the solution. How then can sufficient, suitable and economical accommodation be provided quickly for the present and largely increasing vehicular traffic both in volume and speed? Also for the military and other traffic in the event of air raids?" Mr. Murray submits that it can be done effectively, satisfactorily and most economically by designing and constructing enough sub-roads under London with spiral road entrances and exits, and commencing them simultaneously from a number of suitable locations, thus producing speedy execution.

Mr. Murray has advocated previously (*The Builder*, December 13, 1935) such a scheme, and now it appears that "Paris and New York have since adopted somewhat similar schemes, although the solid clay subsoil under London is far more suitable and economical for tunnelling through than the subsoil of Paris and New York."

I.A.A.S. Easter Conference.

THE Easter Conference of the Incorporated Association of Architects and Surveyors will be held this year at Montrose Ladies' College, Cliftonville, Margate, Kent, from Thursday evening, April 14, to Tuesday morning, April 19.

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The "Ark," Tain : Appeals for Preservation.

APPEALS by H.M. Office of Works for the preservation of the old house known as the Ark, Tain, which is listed by the Tain Town Council for demolition, have now been reinforced by the Roads Department of the Ministry of Transport. The house is stated to be a good example of the 17th-century architecture, and a fresh survey is to be made by the Department in an effort to find an alternative solution to the traffic problem at the site. H.M. Office of Works has appealed to the Council to preserve a lintel stone and moulded fireplace, or measured drawings, should demolition be found unavoidable.

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Dundee's Central Area : A Town Planning Report.

DUNDEE CORPORATION, on March 14, considered and accepted the final report of Dr. Thomas Adams on the redevelopment scheme for the centre of the city. The scheme is estimated to cost ultimately £500,000 and to take some 40 years to complete. It embraces the clearing away of the congested area of the Overgate and the buildings comprising the west end of the High-street, providing a high-class shopping and business centre, and leaving the combined buildings of the three city churches on an island site worthy of the architectural dignity of the structures, as well as widening the north side of the Nethergate.

Dr. Adams's scheme is laid out on lines that will enable the complete proposals to be carried out in sections representing expenditure of £100,000 to £200,000 at a time. In his preliminary report he indicated that the final part might take 40 years to complete, but he says there is no reason why the part of the improvement for which the burgh would be responsible with most of the building on the Overgate should not be completed within 10 or 15 years. Much might be done, including the layout of the Circle, within two to five years. One vital consideration in connection with the finance, he states in his final report, is that the plan can be carried out without, in the long run, adding to the financial burden of the community.

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An Architect's Estate.

MR. CHARLES HENRY HEATHCOTE (87), of Bournemouth, architect (net personalty £60,952), left £61,599.

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A Sculptor's Estate.

CAPTAIN ALFRED ADRIAN JONES, of Chelsea (net personalty £2,868), left £3,142.

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Town and Country Planning Summer School.

THE General Committee of the Town and Country Planning Summer School, of which Dr. Thomas Adams is President, has decided to hold the School this year at Mardon Hall, Exeter, from September 2 to 9. Overseas delegates and students will be especially welcome. The school fee will be one and a half guineas for the full week, and one guinea for the long week-end, which will include membership of the School and attendance at all sessions. The terms for board and lodging, in addition, will be £3 3s. for the full week (single room), or £2 12s. 6d. for two sharing. The week-end board terms will be about £1 1s.

The programme of lectures will be issued as soon as possible, and those wishing to receive copies, or to have their names placed on the School Register, should communicate at once with the Hon. Gen. Secretary, 26, Church-green, Witney, Oxfordshire. Those who have previously attended one of the Summer Schools need not apply, as their names are already on the Register.

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R.I.B.A. News.

ROYAL GOLD MEDAL.—The presentation of the Royal Gold Medal to Professor Ivar Tengbom (Sweden) on Monday, April 4, will be the occasion for a further tribute to Professor Tengbom's work when the Acting Swedish Minister in London will present to him a complimentary address prepared by the Federation of Swedish Architects.

ADDITIONS TO THE LIBRARY.—Recent outstanding additions to the R.I.B.A. Library include a remarkable collection of drawing and other documents from the office of Sir Charles Barry, R.A. (1795-1860), and his successors in the Barry firm. The most important items are early drawings of the Houses of Parliament, which show the development of the design from the first stages, and Sir Charles Barry's notebooks and diary covering almost the whole of his professional career. These have come partly by purchase and partly on "permanent loan" from Mr. C. A. R. Barry, A.R.I.B.A. Drawings and letters by Sir Robert Smirke, R.A. (1781-1867) and his younger brother, Sydney Smirke, of great personal and historical value, have been given by Mrs. Dorothy Biggar, Sydney Smirke's granddaughter.

BRITISH ARCHITECTS' CONFERENCE, 1938.—The seventeenth British Architects' Conference is to be held at Bristol from June 22-25. This is the annual gathering of representatives of the Royal Institute and its Allied and Associated Societies throughout the world.

HEALTH, SPORT AND FITNESS. — The Health, Sport and Fitness Exhibition, which will later tour the provinces, ends its London run on Thursday, March 31, at 8 p.m. The President of the Board of Education, the Right Hon. Earl Stanhope, who, with Countess Stanhope, visited the exhibition on March 17, was, we learn, greatly impressed by its scope and interest. He expressed the hope that all connected with the National Fitness Movement would visit the exhibition. Lord Stanhope made this suggestion at a conference of physical training instructors on the following day, and as a result large numbers of his audience came to the exhibition.

TOURING EXHIBITIONS.—"Airports and Airways" opens at the Museum and Art Gallery, Derby, on March 25. "Civic Centres" opens on April 2 at the Public Libraries, Museums and Fine Art Galleries, Brighton.

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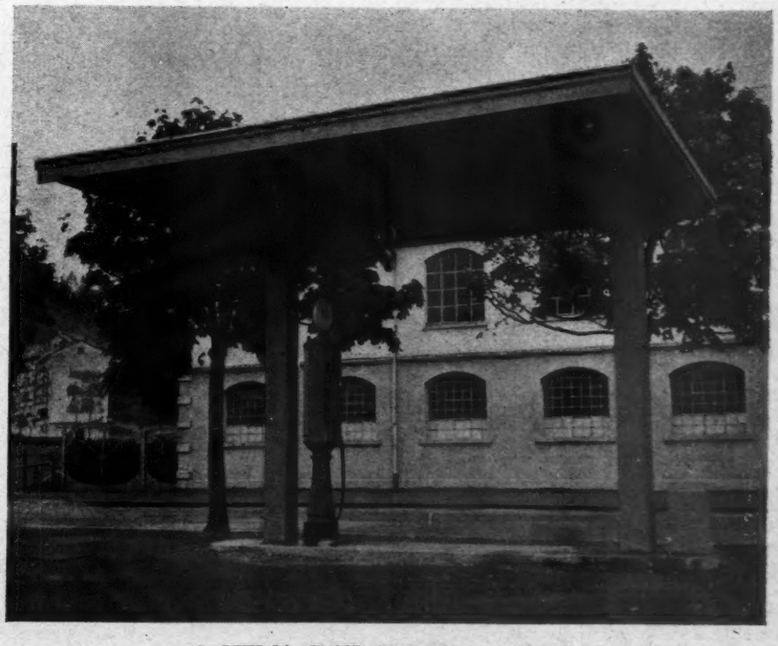
Professional Announcements.

MESSRS. HARTLEY AND HIVES, architects, announce that on and after Friday, March 25, their practice will be transferred to larger offices at Abbey Corner, 2a, King's-road, Reading. Telephone: Reading 2768.

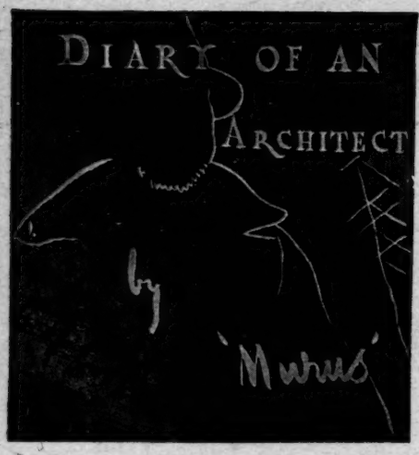
Mr. LESLIE TURNER, B.Sc., M.Inst.C.E., M.I.Struct.E., has removed from 116. Victoria-street, Westminster, S.W.1, to Coastal Chambers, Buckingham Palace-road, Westminster. S.W.1. Telephone: Sloane 5540.

Mr. H. ROGERS HOUCHIN, F.R.I.B.A., announces that he has taken into partnership Mr. G. STANLEY HARRISON, A.A.Dip., A.R.I.B.A., of Radlett, and Mr. ERIC G. STEVENS, L.R.I.B.A., of Harpenden, and that the existing name of the firm (Smee and Houchin) will be maintained. New offices have been taken at 8 and 9, Great James-street, Bedford Row, W.C.1, where the practice is being continued from March 24. The new telephone numbers will be Holborn 9991-2.



A PETROL PUMP SHELTER, LUCERNE.

Of timber construction, this shelter is painted orange and yellow, and is a pleasant contribution to a town noted for the use of colour in its buildings.



EXHIBITIONS, AERODROMES AND ASSISTANTS.

March 20.—BARNEY SEALE, the sculptor, does things in a big way, but then he is what some people would call a big man.

At this moment he is working on a group symbolising "Health," which is to be placed in the Hall of the British Pavilion at the Glasgow Exhibition, which HERBERT ROWSE is designing. The figures are 28 ft. high, and, although you may have heard of his frantic search for models perfect enough in physique to represent health, you may not have heard of his equally frantic search for a studio in order that 28 ft. high figures could be modelled.

His choice was a curious one—under the concrete seating of the Stadium known as the White City at Shepherd's Bush. The seats rise to a great height, supported on concrete bays, and the enclosing of one of these bays in iron and glass gives the perfect working space and light for such work.

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I went up with him one morning to see this affair, and the possibilities that exist for the utilisation of the space under these vast seating areas is enormous. It is perfectly obvious at the White City that nothing particularly has been done about it, and I seem to remember in other sports centres a complicated array of struts under the seating, which performed no function whatsoever other than as a support for the seating.

It is a problem—with periodic acute congestion occurring in the stadium—what could be done, but obviously working studios or workshops is one. Restaurants and bars for both the use of the workshop employees and the occasional spectator is another. I see no reason why garage accommodation cannot be incorporated.

The whole architectural conception of a sports stadium is a grand one. It represents the finest possibilities in architecture. The White City, with its beautiful ovoid shape, the concentric grass and gravel tracks, the cantilevered lights surrounding the track, the pylons of searchlights and the sweep of the seating gives a majestic sense of man-made things. As an architectural programme it is supreme.

Barney Seale did say that there is some talk of this particular stadium being covered in by a single roof at the cost of £250,000. It sounds ambitious, but GENERAL CRITCHLEY, who is responsible for its running, is that sort of person.

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Aerodromes have the same architectural possibility as stadia. The combination of broad landscape, the clean landing ground and the low-lying buildings is a definite architectural dream. I cannot think, in this country, where such a possibility has been seized on and made good.

For some curious reason, the progressive business of flying gets mixed up with politics, either Parliamentary or local, and up pops Mr. Pompous, J.P., and—wam!—goes Master Progress, A.R.I.B.A.

A shortage of money in civil aviation must account for a good deal of shabby aerodrome design. Occasionally, I go to Hanworth and sit in the aerodrome hotel rooms while the bright young things give us displays of "savoir faire," aplomb, or sheer negligence—as you like.

But I always have the feeling that the expense of running a private 'plane keeps the money tied up in that 'plane, and the ground staff necessary to make it possible. The buildings are old—they do not reflect the spirit of flying.

As for the heavily subsidised R.A.F., I cannot tell you. Recently I tried to take some photographs of a building in which R.A.F. machines were being built, and it needed all my acquaintances to assure the guards that it was not necessary either to arrest me or smash my camera. Just harmless little "Murus," trying to find material for a "Diary."

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March 21.—The public architect and the architectural assistant have recently become news. How much controversy GOODHART-RENDEL started by his presidential address is difficult to ascertain, but it seems reasonable to suppose that he threw a monkey-wrench into the architectural machinery about more than one subject, with the satisfying result that discussion has become general regarding these subjects.

Resulting from these discussions have been the suggestions for dividing architectural assistants into grades, giving out the names of assistants in the publicising of jobs.

The whole business seems fraught with complications. There are good assistants who do not wish for publicity, bad assistants who resent their employer's publicity; architects who would not dream of letting their assistants touch the design, and other architects who would not dream of touching the designs themselves.

How to generalise about this subject of human ambitions I cannot think.

I suppose, basically, it is the ambition of most architecturally trained persons eventually to become architects. A much more important aspect, then, appears to be in this possibility. After all, to become *known* as an assistant in any walk of life (particularly films) is a deterrent to that person becoming anything else. There is no logical reason in this, but it is undoubtedly so.

First, then, is the danger of becoming publicised as anybody's assistant. Second is that question which is almost insoluble in this capitalistic world—How to become an architect without capital? There are, of course, persons possessed of such ambition that the job of driving through the inefficiency of this world is comparatively easy, and by early industry and a clear knowledge of what they are after, achieve material success before middle age. To those people there is nothing that one can say—they just know.

But against each one of these persons, about whom one may truly say that they possess a one-track mind, there are ten thousand normal persons who waver between industry and leisure, responsibility or freedom, wealth or poverty, and fame or obscurity. It is this vast mass of persons that one thinks of in any discussion on the general fairness to humanity.

In architecture, such a person may become an assistant, a free-lance ghost, a perspective man, and strive always to land the small job that means professional freedom.

Such a minor success brings immediate joy and ultimate pain. The odds are that he may find himself in the position of humiliating himself before his own assistants and his clients for purely financial reasons. It is a time when most embryonic employers fail and retreat to comparative safety. For such people the glory of being a known assistant means nothing, unless it be Dead Sea fruit.

Group firms appear to be some sort of solution. To lose one's individuality in the name of a firm may annoy the young and ambitious; it still remains the sound solution. Anonymity goes well with a sound philosophy.

The sort of thing I mean is embodied, to the best of my belief, in the firms of TECTON and PRAXIS. The work is good, the possibilities among architects without capital (though I do not suggest these two firms are in such a position) are practical, and, seen from every aspect, there is nothing against this idea of the group office.

And I firmly believe it tends to organise finance.

March 23.—From a Deptford firm of demolition contractors the following letter:—

"Dear Sir,—We understand that your present house is to be demolished and should be glad of an opportunity to quote you for the work. Should you require them we shall be glad to supply several reliable references. Thanking you in anticipation and assuring you of our best attention at all times. We remain, yours faithfully. . ."

It is a poignant touch to a removal which I wrote about last week but, I am sorry, the demolition is already in hand.

Murus

RURAL HOUSING DESIGN

THE Minister of Health, Sir Kingsley Wood, received on Tuesday a deputation from Members of Parliament, representative of all parties, who are interested in the preservation of amenities in the building of houses. The deputation, which was introduced by MR. RONALD TREE, said they were anxious that the houses for the agricultural worker which would be built under the provisions of the Housing Bill now before Parliament should be of suitable appearance, and built on suitable sites.

SIR KINGSLEY WOOD, in reply, said he thought that the preservation of amenities could best be secured, not so much by statutory provision, as by the vigilance and co-operation of all concerned. A statutory requirement that local authorities should employ architects would not be the most effectual way of meeting the situation. The architectural profession had done much to help, but it was only a proportion of architects who had had such experience of cottage building as would be likely to secure the desired result. He proposed to make it a condition that plans for rural housing should be presented to the Department at an early stage so as to enable alterations to be made without involving delay in the progress of the schemes.

He would continue to encourage the use of existing voluntary panels of architects, the setting up of new panels, and the adoption of suggestions by the Council for the Preservation of Rural England, and added that he proposed to issue a manual, now being prepared by a sub-committee of th Housing Advisory Committee under the chairmanship of Lord Crawford, dealing specially with rural housing.

DESIGN DETAILS

By "DOMUS."

XIV.—WALLS.

SOME few years ago Sir Giles Scott addressed a group of students, and, in speaking to them, stressed the importance of being able to design a wall. Until we have many years between us and our student days we are apt to undervalue an apparently simple suggestion like this, although, if well trained, we shall have been told many times about textural

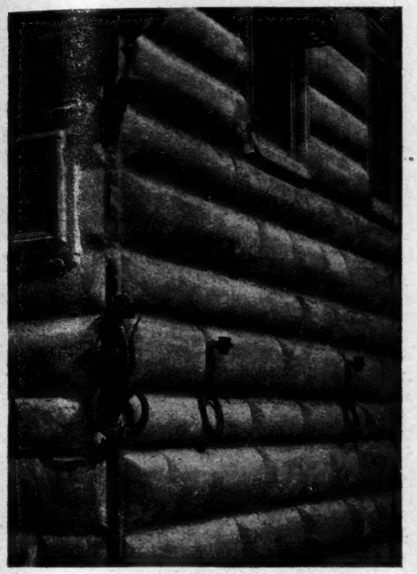


FIG. 1.—STROZZI PALACE.

quality in design. Because of its apparent simplicity wall-design is actually a very complex matter. It demands a real appreciation of materials and a wide knowledge of their properties

FIG. 2.—HAMPTON COURT.

and use. In addition, the architect capable of building a fine wall must have a deep understanding of the many crafts allied to wall-building, such as bricklaying and stonemasonry, because each has many subtleties and a long tradition behind it.

The textural quality in walls as opposed to that of the single brick or stone which goes to their making may be compared to the appearance of a whole garment as compared with the small pattern a tailor may first show us. We know very well how different these may seem. Wall-building has further complications, since the colour, texture and finish in mortars gives such variety of appearance to the bricks or stones they adjoin. In addition, there are all the shades of difference obtainable with dry walling, a type which relies on the depth and widths of shades or shadows among its dry joints.

Some idea of wall-design can be gleaned from an examination of the examples illustrated, and these are only a few. Fig. 1 shows the angle of the famous Strozzi Palace, Florence, a building which is as famous for its walling as for its main design and its magnificent details. The large pulvinated courses give it its dominant character and show us at once the significance of walling in architectural design. For walling alone can set the scale in building work besides

FIG. 3.—BURY ST. EDMUNDS.

giving it a special character which can suit or detract from the qualities of natural surroundings or more specialised adjuncts. For instance, a wall which

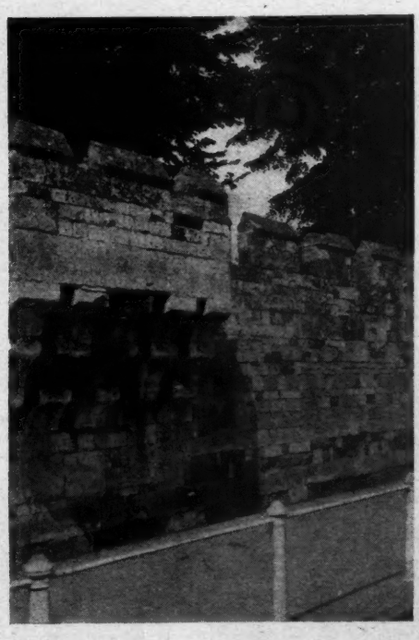


FIG. 4.—WINCHESTER.

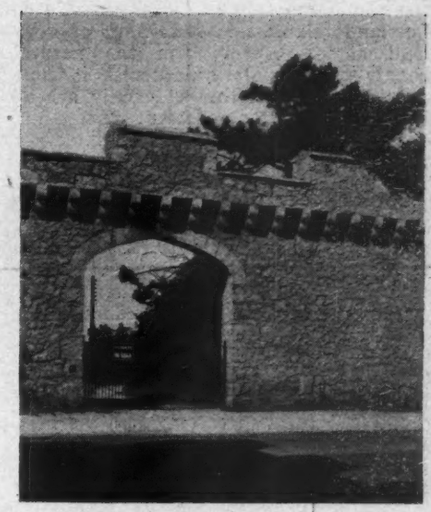


FIG. 5.—NEAR CONWAY.

might very well look admirable as a screen to a railway station would probably look hideous as a background to a herbaceous border. Similarly, a wall whose scale (regardless of its materials) appears about right for any one purpose, may look wrong if used for another purpose. Another glance at Fig. 1 shows us still further factors that an architect has to consider in connection with walling, namely, the scale-relation between other features and walling itself. In the Strozzi Palace we find bold stone surrounds to relatively small windows which accord with the whole scheme. In English work the early sash windows, such as we find on Sir Christopher Wren's façades at Hampton Court, seem peculiarly satisfactory in their scale-relation with the brickwork adjoining them. By contrast, the many Georgian windows, which were robbed of their glazing bars in Victorian times, bear a most unhappy scale-relation to the brickwork's scale, and it is largely because of this that windows of this kind seem so ugly.

As an instance of somewhat formal garden walling, it would be hard to find a better example than that to Hampton Court. Fig. 2 shows a section of this which relies on its three materials, namely, Portland stone and two kinds of brickwork, for its undoubted success. The bays are in dark purple-red bricks of rough texture, laid with raked-out joints. Each bay has one large panel recessed 2 in. The interval pilasters echo those of the feature seen in Fig. 2, and comprise Portland stone blocks 12 in. deep and, between them, an equal height of finely jointed light-red brickwork. The whole wall creates an effect of dignity, and it has a quality that harmonises with Hampton Court Palace itself, besides being admirable as a background to the wide herbaceous borders which adjoin long lengths of it.

The brick boundary wall in Fig. 3 has great interest due to its serpentine plan-form. This has structural significance in that it gives a stability which would be lacking in a straight wall unless that was strengthened with interval buttresses or, in itself unduly thick. These serpentine walls are rare in England—that illustrated is at Bury St. Edmunds, Suffolk. Fig. 9 shows another brick boundary wall. The strength is here provided by piers, one of which can be seen at the right side of the photograph. These do not seem so insistent as definite buttresses in wall-design, but they serve a similar structural need. The fine stone wall in Fig. 12 encloses

the grounds attached to a large house on Portland Island, and it is built of Portland stone. Apart from the natural beauty of its material, interest is here provided by a rhythm of evenly spaced buttresses of simple design. These are executed in "coursed" stones, and they make an attractive contrast with the random jointing of the wall itself. Like the quoin stones at the angles of buildings, these buttresses instance a practical requirement in building work. They are the points from which the random work is controlled, plumbed and roughly coursed in the same way that brick quoins, lacing courses and dressings around windows in flint wallings also have a definite structural significance. It is rare to find any flint walling with neither stone nor brick dressings except in cases where the form of the walling obviated them on structural grounds. The round-tower churches of Norfolk are examples of such flint walling. It is more than likely that these arose purely from structural considerations, in districts where there was insufficient local stone or brick to provide dressed quoins readily and cheaply, although these districts had abundant quantities of small flints. Figs. 6, 7 and 8 show three examples of flint walling—the tiny round tower church (Fig. 6) is at Bawburgh, Norfolk. The square tower with dressings to its angle and buttresses (Fig. 8) is at Braintree, Essex, and the stone and flint panelling (Fig. 7) is from Long Melford Church, Suffolk, a magnificent and large church, rich in this knapped flint panelled walling.

The Cotswold district has splendid specimens of stone walling both for whole buildings and in garden work. That shown in Fig. 11 is an excellent instance of dry random walling. Its design, like that in all good walls, is largely the outcome of structural expression, which is clearly seen here in the lacing courses. Another very attractive Cotswold example is shown by Fig. 10. The success of its simple entrance doorway is due to good proportion and well-arranged dressed quoins surmounted by a simple lintel raised to emphasise the feature.

Wall copings play an important part in wall-design. Some idea of their variety can be gathered from Figs. 4, 5 and 13. The thatch "roof" to the stucco-rendered white wall in Fig. 13 makes a soft and suitable coping on this particular wall, which harmonises well with the spacious green verge between it and the roadway. It has a softness which fits well into the special kind of natural beauty found around Somersetshire. Fig. 5 shows a small section of a high stone wall on the coast road between Conway and Colwyn Bay. This Welsh example is notable because of a boldly treated coping that possesses a fortified character like that found in castle architecture. Welsh granite of a cool grey colour is the material for the whole scheme. Fig. 4 shows another battlemented wall. This massive specimen adjoins a road in Winchester. The projected balcony feature seen in the photograph is carried on five finely modelled heavy stone corbels which are in good scale with the stonework of the wall itself, besides being well related to its bold parapet.

Historical examples of wall building like Hadrian's wall and walls still remaining to this day around towns such as Chester, are among the "historic" monuments which attract as many visitors as may yearly visit that astonishing circle of Druid Stones, Stonehenge.

(To be continued.)

CORRESPONDENCE.

"An Alternative to Tenements."

SIR,—I have read Mr. Trystan Edwards's articles on "An Alternative to Tenements" with considerable interest. There seems some justification for the view that tenement dwellings are not by any means generally liked by working-class families, and, making all due allowance for prejudice and sentimental associations, it seems a little hard that people should be given no choice at all as to the sort of homes they must live in.

This is generally admitted, but the economic impossibility of putting small houses on expensive sites has been the overriding argument in favour of multi-storey dwellings. Mr. Edwards argues that houses can be planned at comparable densities while yet providing adequate light and air for the health of the occupants; like Miss Elizabeth Denby, he sees the solution in a return to the three-storey terrace type of development, with the addition of a roof garden.

Now it seems to me that Mr. Edwards is spoiling his case by claiming too much for it. In order to give densities of 40 and 50 to the acre, the planning is so cramped that only 20 ft. separates the sitting-room windows of houses in adjoining streets, and if the yard fence is raised to secure privacy the outlook from these windows is blocked at a distance of 10 ft. The occupants of flats have to put up with a number of things, but they normally have a view from their rooms over a clear space of 70 to 100 ft. of grass and trees. Also, the planning of quite small houses on three floors makes for inconvenience in running and would not, I think, prove very economical. Finally, so long as coal fires are general it may be doubted whether the garden among the chimney pots would be made use of to any great extent.

This type of development, it seems to me, is eminently suitable for a density of about 30 to the acre. Where a large site is being dealt with it could be combined with a few blocks of flats to increase the average density and give variety to the scheme. At present nearly all housing work falls into one of two stereotyped categories: five-storey flats at about 60 to the acre and cottages at about 12 to the acre. There should be some considerable scope for some intermediate type of planning on the general lines advocated by Mr. Edwards.

F. L. JACKMAN [A.R.I.B.A.].
10, Gray's Inn-square, W.C.1.

Motor Roads and Railways.

SIR,—The unceasing number of motor accidents is creating an army of cripples, and we are losing thousands of pounds yearly through their absence from work, and we are taxing heavily the staffs and incomes of our hospitals; and for what? We have no right to give a highly powered machine liberty to use streets and roads which were never made for such traffic.

Why not give the motor traffic a separate road? Surely the enormous taxes they pay in petrol, road tax and also in insurance premiums entitles them to it. Such a road could be quickly and cheaply erected over existing railroads, exclusively reserved to motorists, and made so as to separate up and down traffic to avoid head-on collisions. Very little extra land would be needed, and work could be commenced wherever there were railways.

N. Ireland. D. P. MARTIN.

COMPETITION NEWS

New Council Offices, Adwick-le-Street.

The Urban District Council of Adwick-le-Street invite architects whose offices are situated in the West Riding of Yorkshire to submit designs in competition for the new council offices proposed to be erected on a site adjoining the Park, Adwick-le-Street. Mr. John C. Proctor, F.R.I.B.A., of Leeds, is assessor, and premiums of £50, £40 and £30 are offered. Designs by August 30 to the Clerk, the U.D.C. of Adwick-le-Street, Council Offices, Adwick-le-Street, near Doncaster, to whom any questions must be addressed by April 23, and from whom conditions and site plan are obtainable upon deposit of £1 1s.

Following are points from the conditions:—

It is advisable that competitors should make themselves acquainted with the site and the local conditions. The promoters, while not wishing to tie competitors in any way, suggest that a straightforward, well-lit plan with a modern treatment of the elevations in a local brick, with the sparing use of stone, would be acceptable. As the site is in a mined area, competitors should take the necessary precautions against subsidence. The cost is not to exceed £16,000, including cost of council chamber furnishing, and professional fees of architect and quantity surveyor.

Accommodation required is: Council Suite (on first floor), to provide seating for the chairman and 30 members and officials; also for four members of the Press on the floor level of the council chamber, and for 50 members of the public, either on this level or in a gallery. Accountant's Department (on ground floor). Surveyor's Department (on ground floor). Health Department (on first floor); and Electricity Department (on ground floor). In addition, there is miscellaneous accommodation required.

New Crematorium, Oxford.

The Oxford Crematorium, Ltd., are proposing to hold a competition, open to architects practising or resident in the counties of Oxfordshire, Buckinghamshire and Berkshire, for a new crematorium. The assessor is Sir Guy Dawber, A.R.A., F.S.A., P-P.R.I.B.A., and premiums of £100, £60, and £40 are offered. The last day for receiving designs is May 14, and the last day for questions April 9. Conditions of the competition (deposit £1 1s.) may be obtained on application to the Secretary, Oxford Crematorium, Ltd., 55, Cornmarket-street, Oxford.

Extensions to Chester Royal Infirmary.

The last day for submitting designs for extensions to Chester Royal Infirmary has been extended to May 31.

Duncan of Jordanstone College of Art.

The last day for submitting designs for Duncan of Jordanstone College of Art, Perth, has been extended to May 30.

A Housing Scheme, Saltcoats, Scotland.

Saltcoats Town Council have requested local architects to submit plans for 60 houses in two-storey blocks, and 40 semi-detached bungalows, to be erected for the New England scheme and on the High-road site.

CURRENT COMPETITIONS.

Lay-out of buildings, (Yorks) T.C.	"Stray" for Redcar	Particulars published in "Builder."	Sending in date.
£250, £100 and £50. Prof. P. Abercrombie, V.-P.R.I.B.A., assessor. Conditions (dep. £1 1s.) from Town Clerk, Municipal Buildings, Redcar. Questions by December 31.		Nov. 12.	Mar. 31

[Other brief details held over.—Ed.]

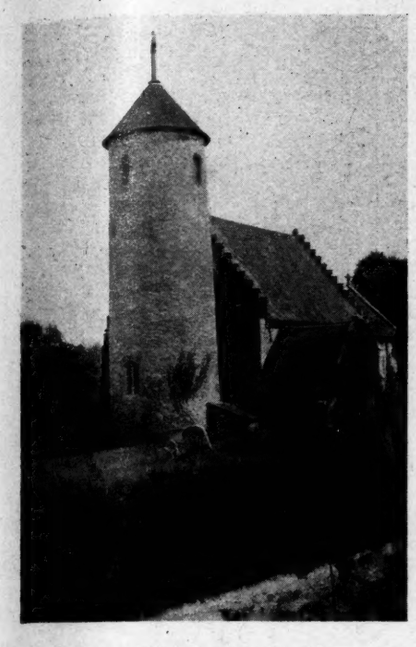


FIG. 6.—BAWBURGH CHURCH.

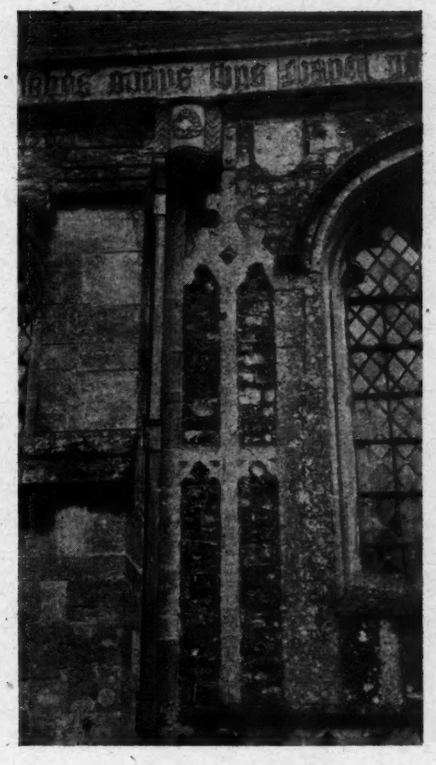


FIG. 7.—LONG MELFORD CHURCH.

FIG. 8.—BRAINTREE CHURCH.

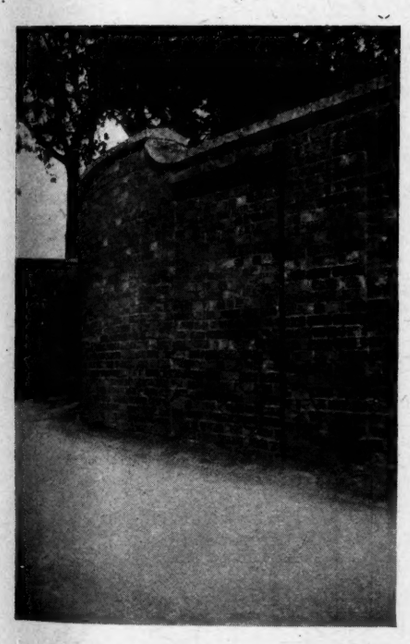


FIG. 9.

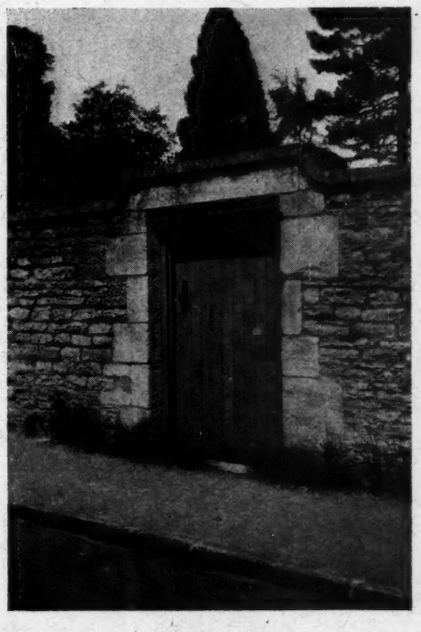


FIG 10.

FIG. 11.

FIG. 12.—WALLING AT PORTLAND ISLAND.

FIG. 13.—STUCCO AND THATCH WALL, SOMERSET

SOME ENGLISH WALLS. (See *facing page.*)

BRITISH CATHEDRAL BUILDING TO-DAY—IV.

SHEFFIELD CATHEDRAL.

[The series of articles on British Cathedrals now under construction, begun in the New Year, is now continued with illustrations and notes on the extensive scheme of additions to the Cathedral Church of St. Peter and St. Paul, Sheffield. Other articles in the series were: Guildford (our issue for January 7), Liverpool Anglican and Liverpool Metropolitan (January 14), and Blackburn (January 28).—Editor.]

When the Cathedral enlargement scheme was first considered in 1918, a plan was made for building a new nave and choir to the north of the old church. When, however, it was finally decided to begin building, the original plan was regarded as being too ambitious. Moreover, this plan would have meant a certain amount of disturbance of the old building, which was considered undesirable. A modified plan was therefore prepared, in which the extensions, while still on the north side of the old church, did not extend eastward of the line of the tower. The first section of the work, comprising the vestries, the Chapter House and the Chapel of St. George, was then put in hand, and is now approaching completion. Meanwhile, further consideration was given to the question of the main extension, and it was realised that with the very limited length available between the western boundary of the churchyard and the line of the old tower the Cathedral, if built, would not be adequate for its purpose, nor would it be capable of further extension if this should be desired in the future.

A number of alternative plans were accordingly prepared and carefully considered. The possible alternatives, given the condition that the old chancel and its chapels were not to be disturbed, were for building the new nave and choir on the south side of the old church, or for building them from north to south on the site of the old nave. Each of these schemes had certain advantages, but it was decided to adopt the second one, as this permitted a longer building than would have been possible had the alternative scheme been adopted, and, moreover, it does not rule out the possibility of some future extensions should these be needed.

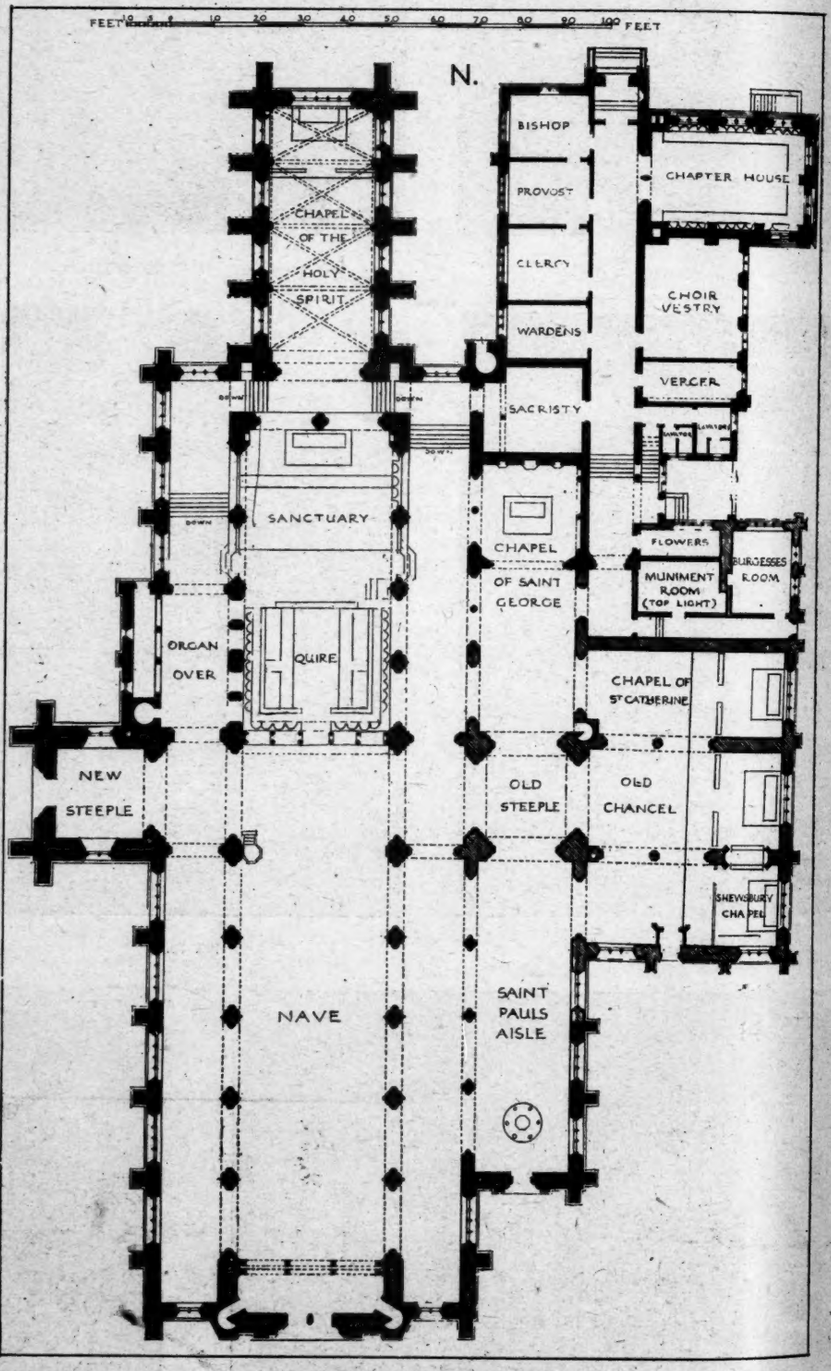
In all these changes of plan the original conception of the church has been adhered to, this being determined by the form and the dimensions of the eastern parts of the old church. The leading idea of the design has always been that of a fairly wide nave and choir separated only by open screenwork and flanked by twin steeples, one old and the other new. The height of the nave must necessarily be limited by that of the steeples, and in order to make the most of this the ceilings have been designed as flat panelled ones, like those at St. Albans and Peterborough Cathedrals.

The architectural style of the extensions is intended to conform generally to that of the old building, though there are certain simplifications of detail dictated by the fact that the climate of Sheffield is not to-day the same as it was in the past.

The Cathedral extensions are designed to be built of stone, which in every age has been esteemed as the most appropriate material for important buildings and, although a limited use is being made of reinforced concrete in foundation work and as a substitute for wooden construction in floors and flat roofs, the essential structural features are entirely of masonry. The building will not consist of a steel framework veneered with stone, but brick backing will be used in place of the stone rubble with which it used to be the custom to build the heart of the walling.

At Sheffield it is hoped that by adopting as lofty proportions as possible, detail of simple and massive character, and a somewhat complex plan with twin steeples, it will be possible to ensure that the Cathedral will, in spite of its limitations, assert itself as something other than a mere makeshift.

The plan gives a continuous nave and choir with an unbroken length of 197 ft., the clear span being 32 ft., and the internal height 56 ft. The extreme external length is 284 ft. The aisles are continued beyond the Sanctuary, and give access to a large chapel, that of the Holy Spirit, projecting towards Campo-lane. It will be possible to vault this chapel in stone, as the necessary buttresses here will be independent of the old parts of the church. Owing to the fall of the ground, this chapel is planned at a lower level than the rest of the church, so that it can be given adequate height without darkening the Sanctuary. The nave and choir are crossed by a transept on the site of the present nave, and the twin towers form the ends of this transept, as is the case at Exeter Cathedral and at Ottery St. Mary Church. The transepts of the old church form an outer



THE PLAN AT NAVE FLOOR LEVEL.

SHEFFIELD CATHEDRAL EXTENSION.

SIR CHARLES A. NICHOLSON AND MR. T. J. RUSHTON, F.R.I.B.A. ARCHITECTS.

THE EXTERIOR, FROM SOUTH-EAST.

ANOTHER VIEW OF EXTERIOR, FROM NORTH-WEST, SHOWING CHAPTER HOUSE AND VESTRIES ON EXTREME LEFT.

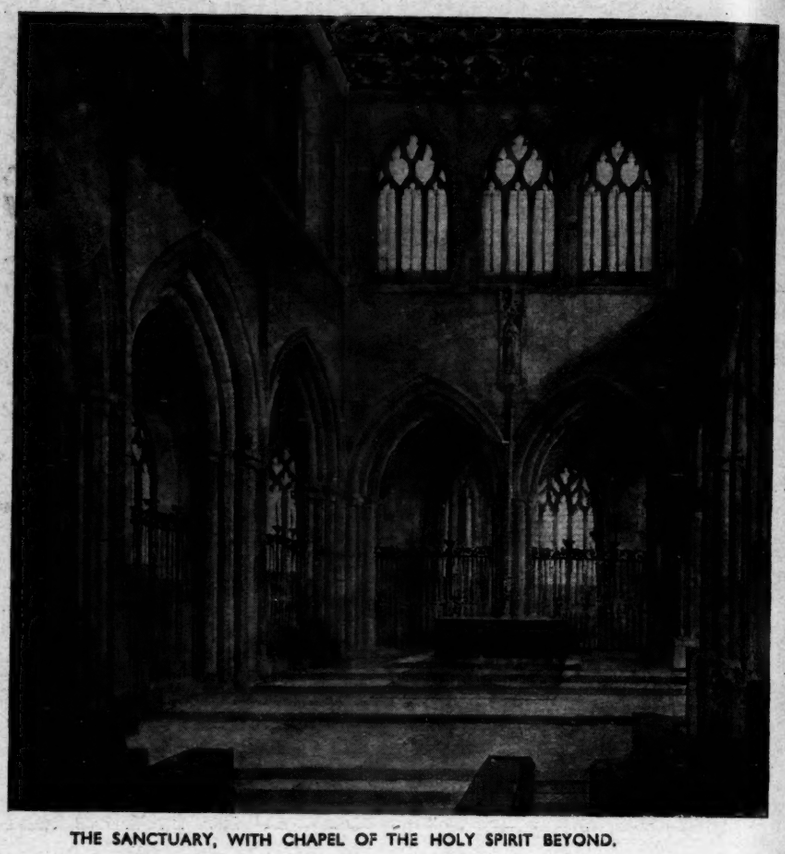
SHEFFIELD CATHEDRAL EXTENSION.

SIR CHARLES A. NICHOLSON AND MR. T. J. RUSHTON, ARCHITECTS.

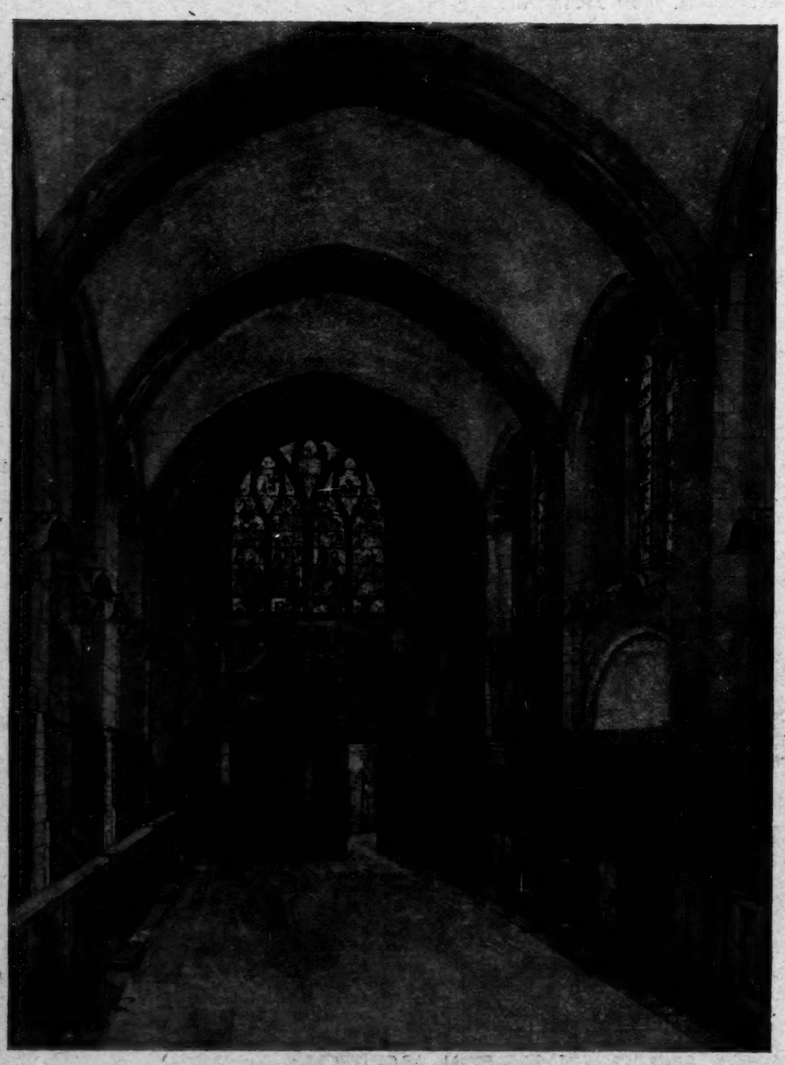
aisle, at one end of which is the Chapel of St. George; the old steeple and three chancels remain untouched.

Such, in short, is the general scheme for enlargement which has been adopted after much deliberation. The first section of the work provides adequate vestries, a "Song School," a Chapter House, a heating chamber for the completed Cathedral, and the Chapel of Chivalry. This section is now well advanced, and it is hoped to dedicate it this autumn. It does not need much description, since the building is now rising for everyone to see. But a word or two about the internal arrangements may be of interest. The Chapter House, the gift of Miss Tozer, stands over a crypt forming the heating chamber, and is close to the entrance from Campo-lane. It is to be an oblong vaulted chamber surrounded with stalls for the members of the Chapter, the Provost's stall immediately opposite the entrance doorway. The room will be used for the double purpose of a Chapter House and Council Chamber, and for the second purpose it will be furnished with massive oak tables. The windows are to be filled with stained glass by Mr. Christopher Webb, illustrating scenes in the history of Sheffield, this glass being also the gift of Miss Tozer.

Separate vestries are provided for the Bishop, the Provost, the Clergy, the choir, and the churchwardens. These, and a roomy sacristy, are arranged on either side of a broad corridor opening into the church. Rooms are also provided for the



THE SANCTUARY, WITH CHAPEL OF THE HOLY SPIRIT BEYOND.



THE CHAPTER HOUSE, LOOKING WEST.

verger and for ladies who attend to flowers. The "Song School" is on the upper floor above the choir vestry, the old choir vestry is converted into a muniment room, and the Church Burgesses' room remains unaltered. Adequate lavatory accommodation is provided.

It is possible that many modifications of detail may suggest themselves in the carrying out of the later sections of the work, but the foregoing notes give a fairly comprehensive description of what has been evolved after a good deal of deliberation called for by the special conditions of the site, and by the importance of the work to which the Diocese has set its hand.

[These notes are taken from an article by Sir Charles A. Nicholson which appears in a brochure produced by the Provost of the Cathedral Church (Dr. A. C. E. Jarvis) as part of the appeal issued by the Cathedral Building Committee for the £150,000 yet required to complete the scheme.]

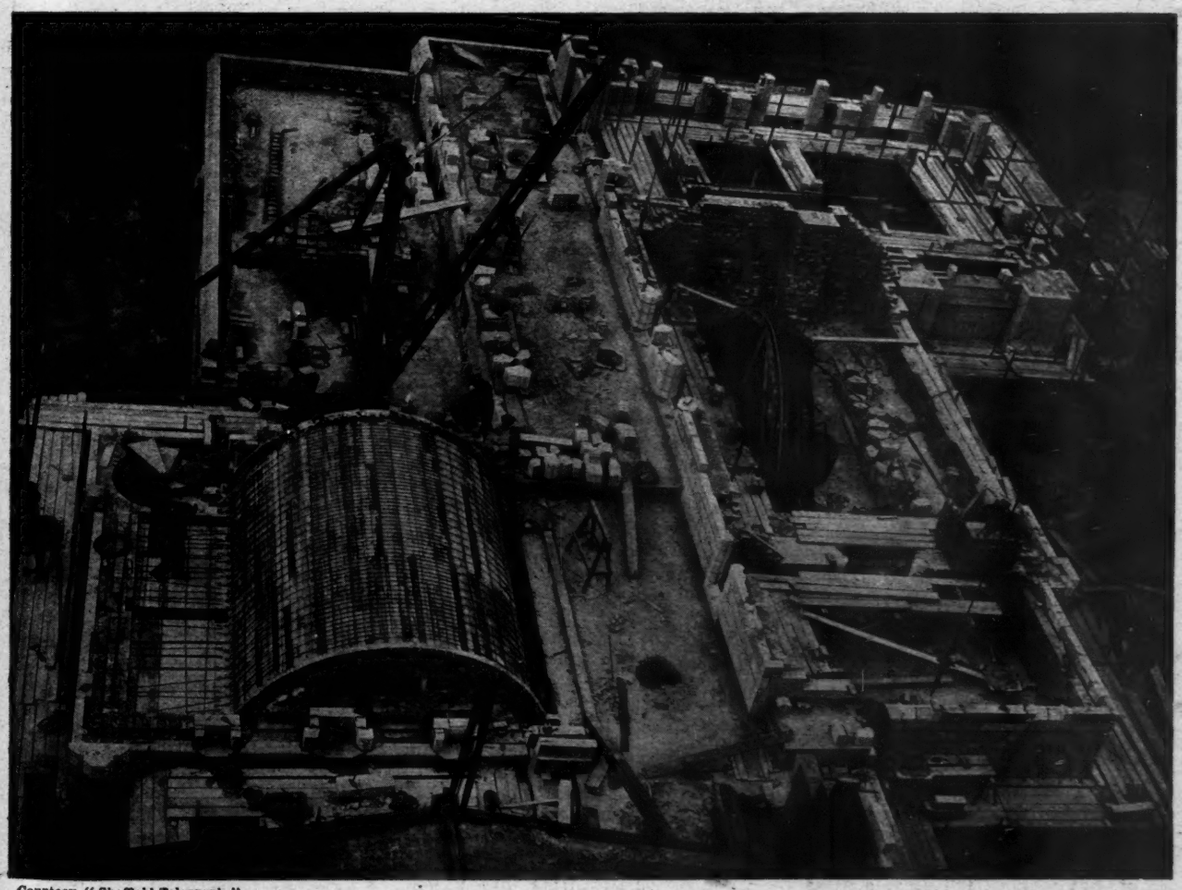
The general contractors for the work now in progress are Messrs. George Longden and Son, of Sheffield, and the stone being used is Darley Dale (dressings) and Stoke Hall (walling). Messrs. G. N. Haden and Sons, Ltd., are carrying out the heating and Messrs. G. W. Franklin and Son the electrical installation.

SHEFFIELD CATHEDRAL EXTENSION.

SIR CHARLES A. NICHOLSON AND MR. T. J. RUSHTON, ARCHITECTS.

PRESENT NAVE, LOOKING TOWARDS HIGH CHANCEL.

In the enlargement scheme the whole of this nave from the Tower Arch (seen with the "Coat of Arms" above it) will be pulled down, and a new nave will be built across from North and South.



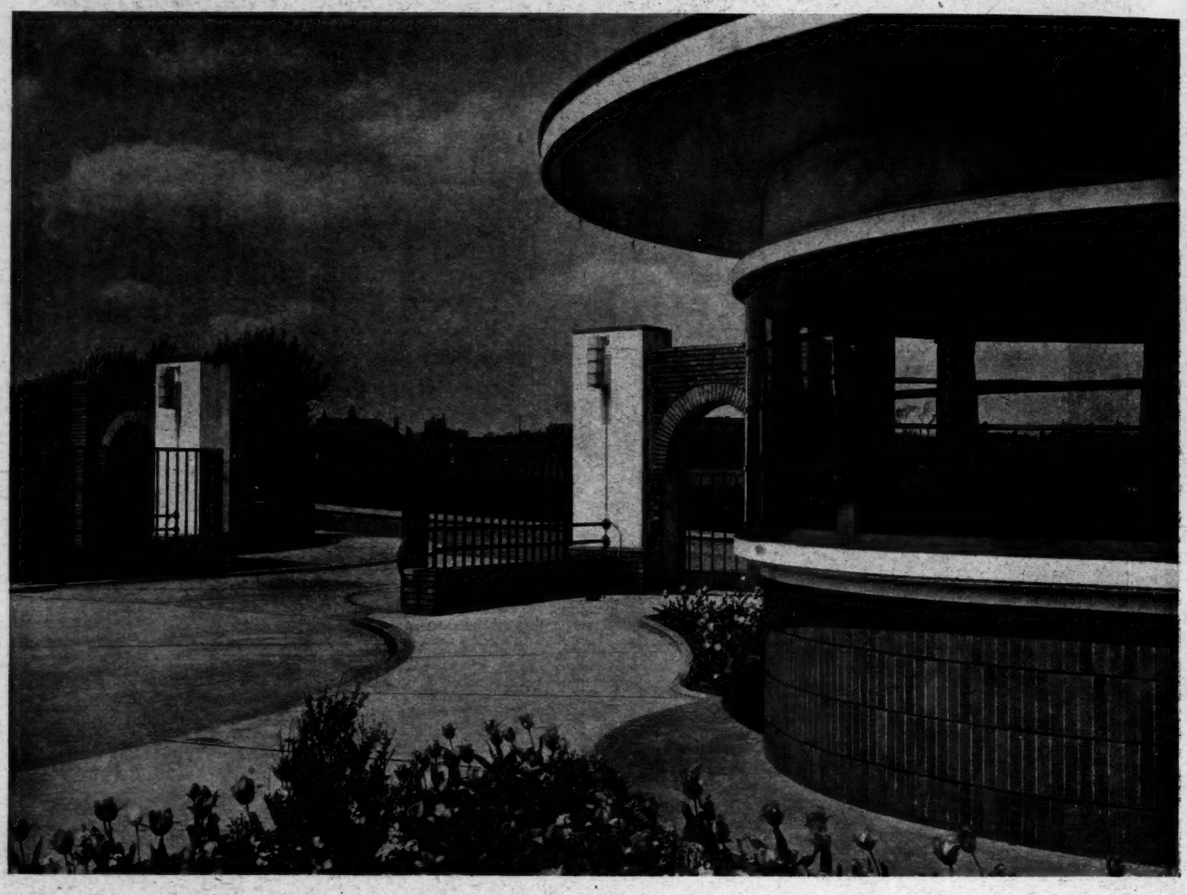
Courtesy "Sheffield Telegraph."

A PROGRESS VIEW, SHOWING WORK ON CHAPTER HOUSE AND THE CHAPEL OF ST. GEORGE.

SHEFFIELD CATHEDRAL EXTENSION.

SIR CHARLES A. NICHOLSON AND MR. T. J. RUSHTON, ARCHITECTS.

EXTENSION TO C.W.S. SOAP WORKS, IRLAM, LANCASHIRE.



THE ENTRANCE AND TIMEKEEPER'S OFFICE.

ILLUSTRATIONS in these pages show extensions to the toilet soap department at the C.W.S. Soap Works, Irlam, where will be manufactured various grades of toilet soap.

CONSTRUCTION.—The low bearing-capacity of the soil made it inadvisable that there should be any structural connection between the existing soap factory and these extensions. A cantilever form of construction was adopted for the extensions, with the outer line of columns set back 6 ft., the walls acting merely as screens.

The building is carried on 560 precast reinforced concrete piles driven 40 ft. deep, and is constructed entirely in reinforced concrete with the faces left exactly as they came from the forms. Special attention was paid to the construction of the form work, and with the exception of a small amount of surface grinding no other treatment has been found necessary.

The external walls have been finished with oil-bound water paint, cream in colour. The nature of manufacturing processes called for the provision of the maximum window area with even distribution of light, but without too great a glass exposure either to the cold winds on the north or the sunshine on the south.

The basement floor is used for the warehousing of finished products, and the light lofty upper storeys for the accommodation of soap-making plant, with unobstructed floors designed to carry exceptional loads.

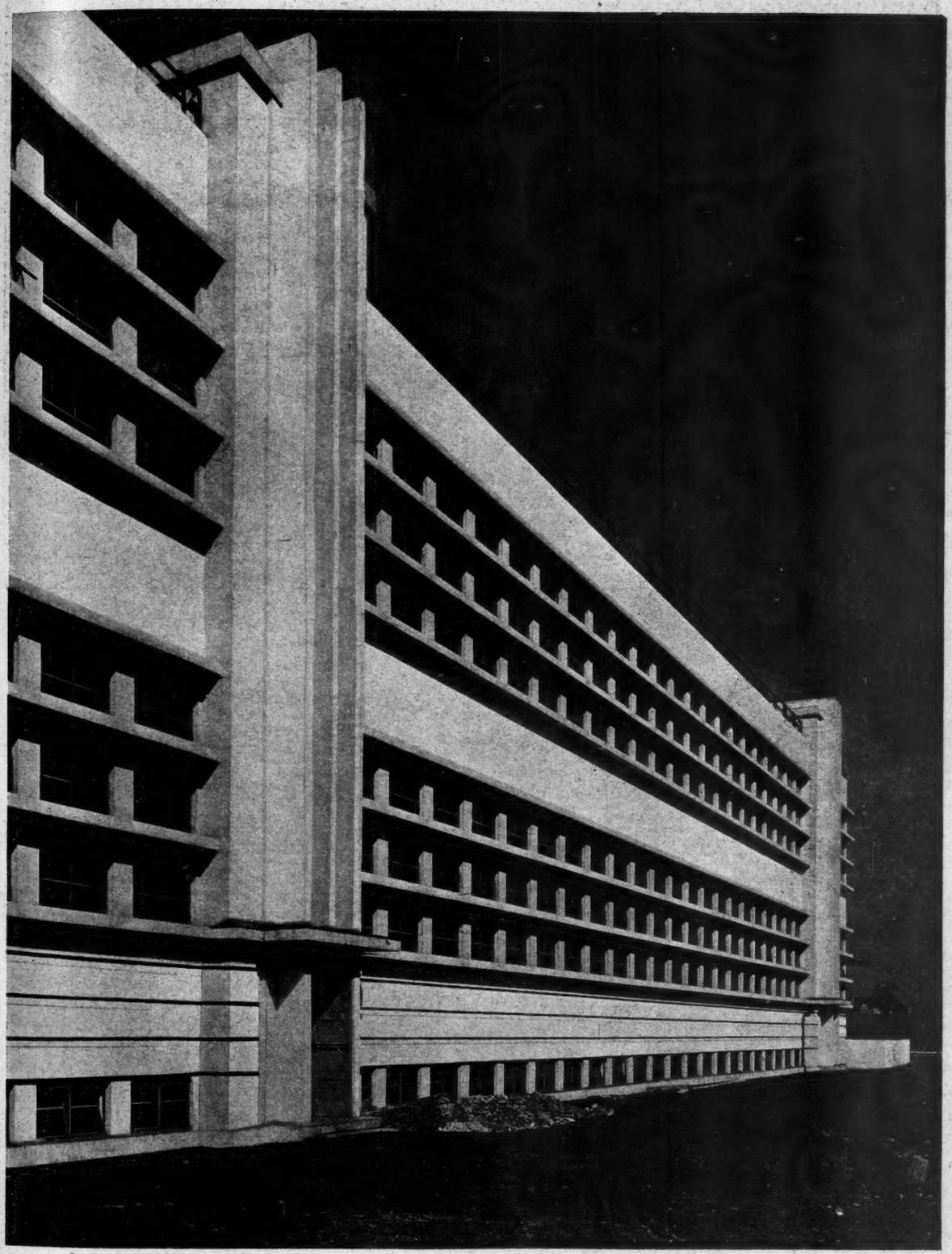
ENTRANCE AND TIMEKEEPER'S OFFICE.—The main entrance, with timekeeper's office is erected in 2-in. red Accrington bricks, with $\frac{3}{8}$-in. recessed joints. The window sills and heads and projecting roof are constructed of reinforced concrete, painted white; the windows are of steel. The entrance gates are of wrot-iron, and the gate piers are in reinforced concrete, painted white.

The buildings have been erected to the designs of Mr. W. A. Johnson, Architect to the Co-operative Wholesale Society, Ltd., Manchester, assisted by Mr. C. L. Paice, as regards the works extension, and Mr. J. W. Cropper as regards the main entrance and timekeeper's office, both Mr. Cropper and Mr. Paice being engaged in the Architect's Department.

The Building Department of the Co-operative Wholesale Society acted as the general contractors, and were responsible for the whole of the reinforced concrete piling and the construction of the building.

The specialist firms associated with the works were: Henry Hope and Sons, Ltd., steel windows; J. A. King and Co., Ltd., "Glascrete" windows and roof lights; and Limmer and Trinidad Asphalte Co., Ltd., asphalting work.

MR. W. A. JOHNSON, F.R.I.B.A., ARCHITECT TO THE SOCIETY, ASSISTED BY MESSRS. C. L. PAICE AND J. W. CROPPER.

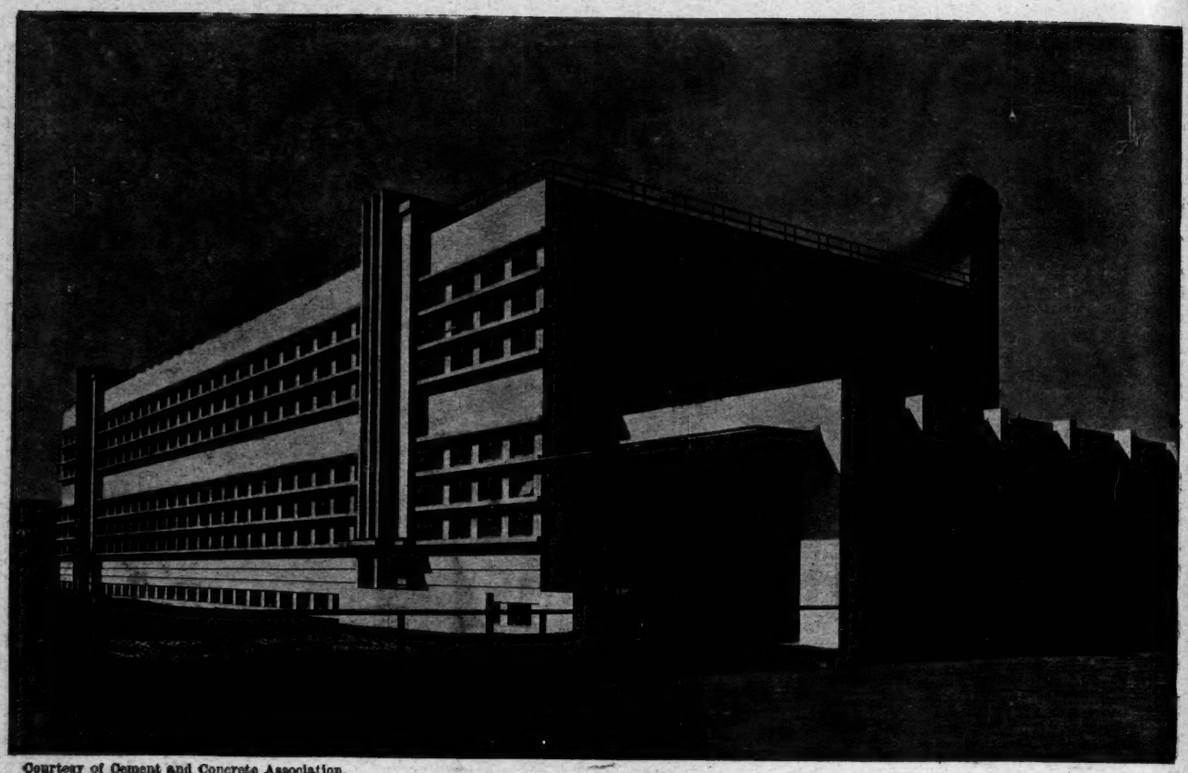


Courtesy of Cement and Concrete Association.

DETAIL OF EXTENSION.

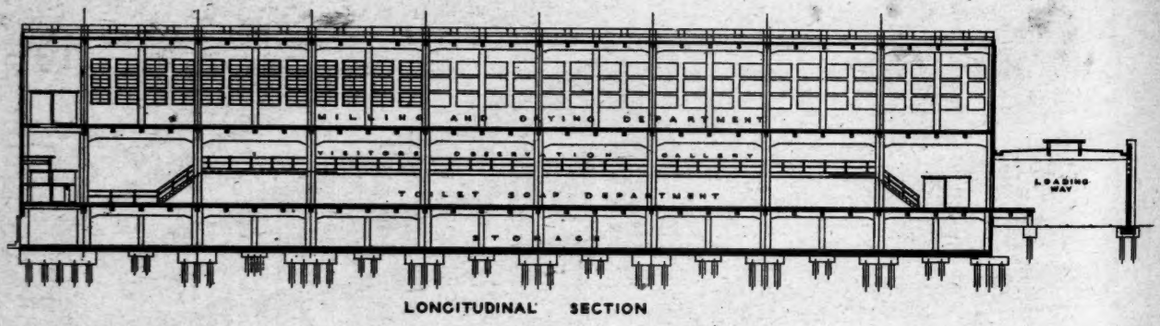
EXTENSION TO C.W.S. SOAP WORKS, IRLAM, LANCASHIRE.

MR. W. A. JOHNSON, F.R.I.B.A., ARCHITECT TO THE SOCIETY, ASSISTED BY MESSRS. C. L. PAICE AND J. W. CROPPER.

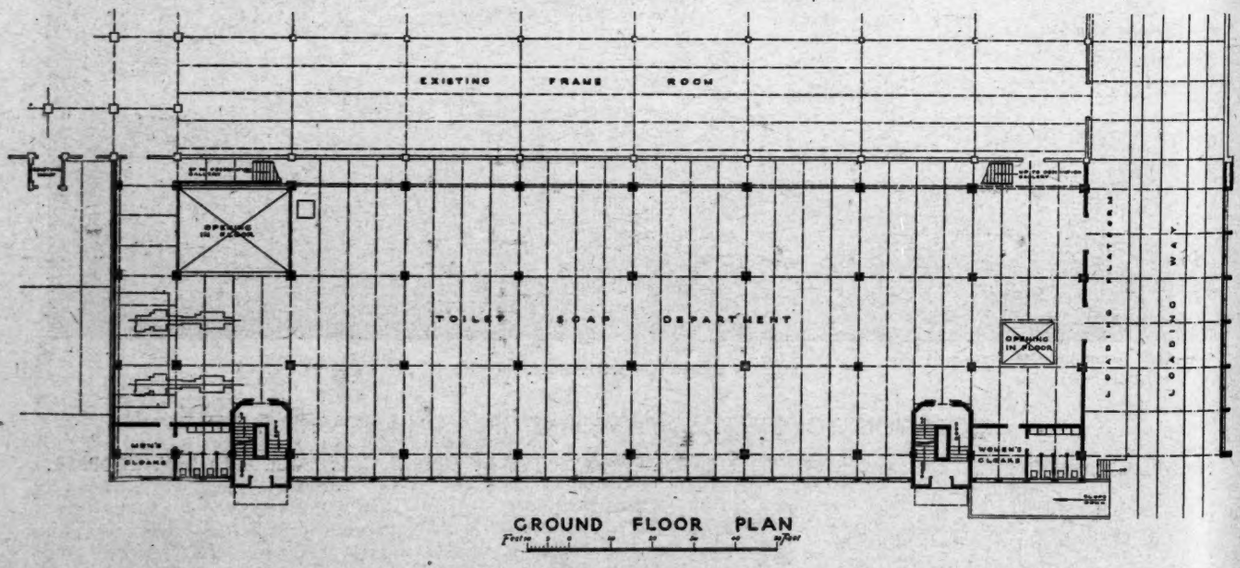


Courtesy of Cement and Concrete Association.

GENERAL VIEW OF EXTENSION.



LONGITUDINAL SECTION

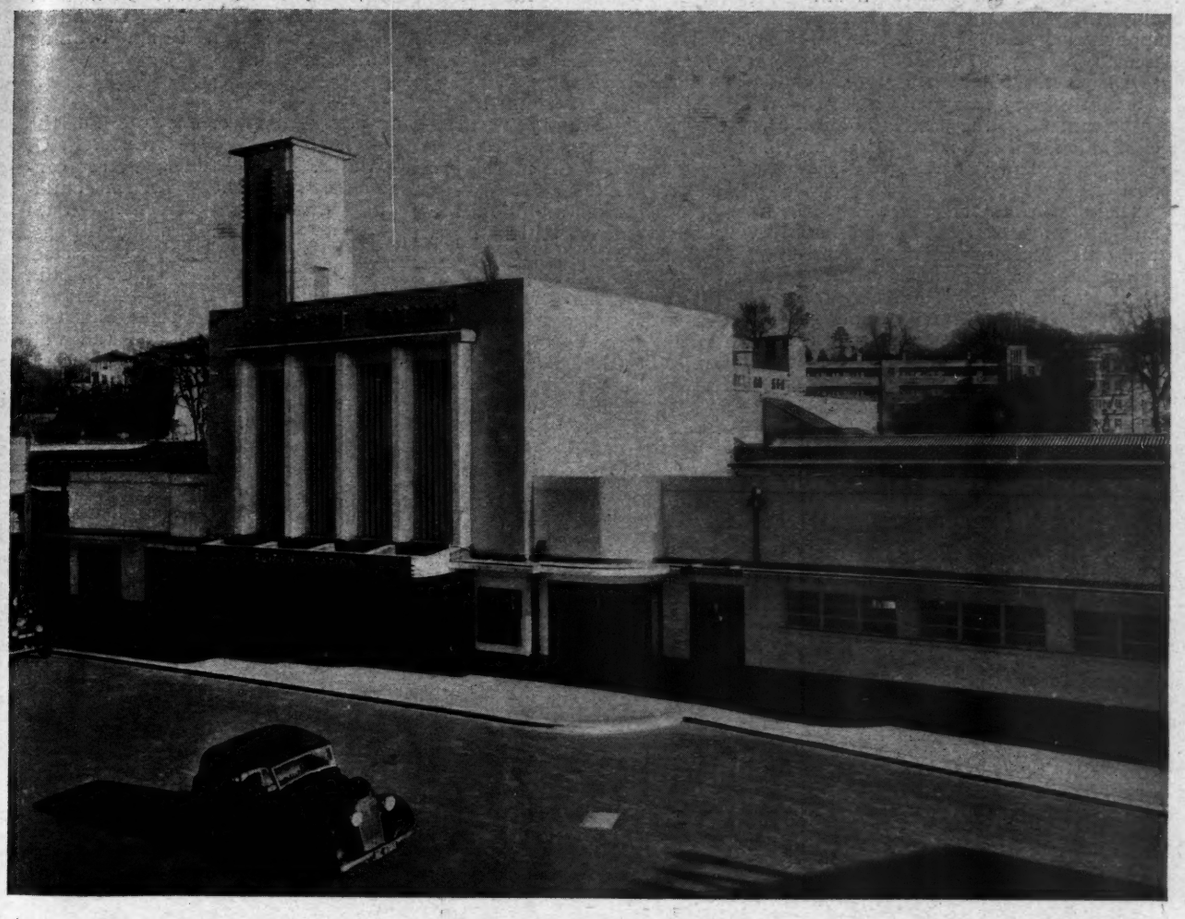


GROUND FLOOR PLAN

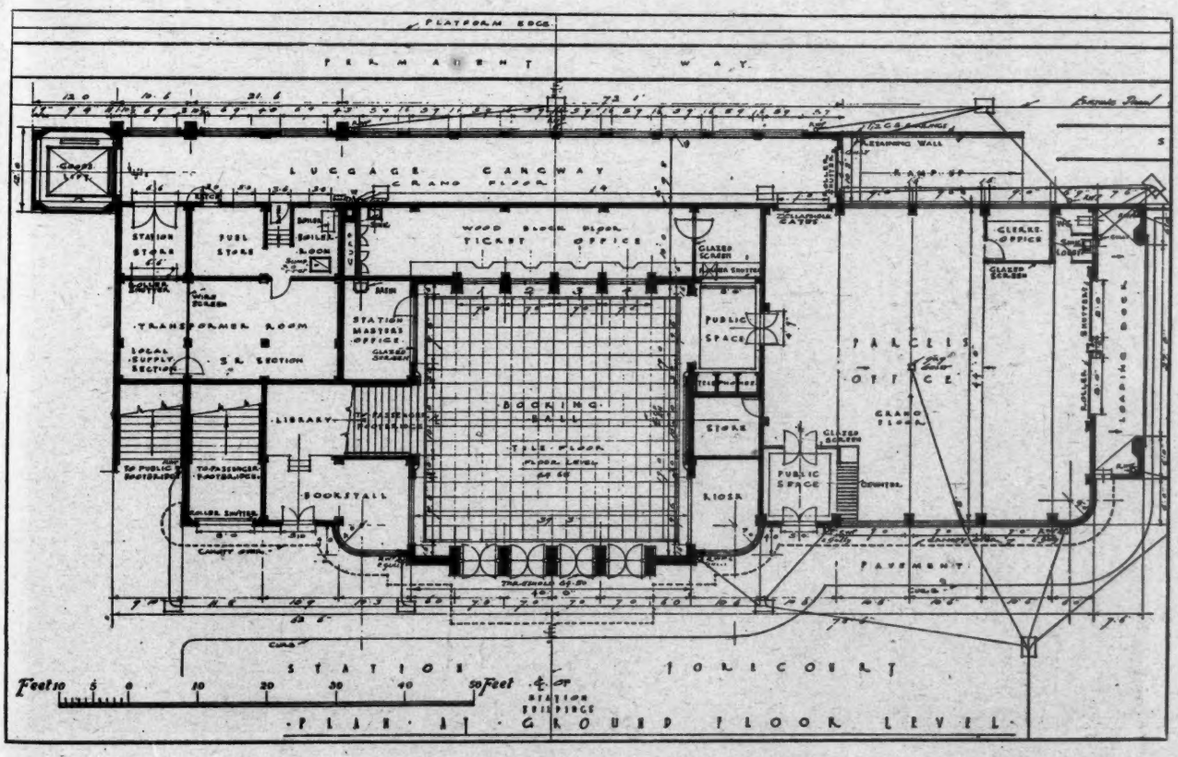
EXTENSION TO C.W.S. SOAP WORKS, IRLAM, LANCASHIRE.

MR. W. A. JOHNSON, F.R.I.B.A., ARCHITECT TO THE SOCIETY, ASSISTED BY MESSRS. C. L. PAICE AND J. W. CROPPER.

NEW STATION AT SURBITON, SURREY, FOR SOUTHERN RAILWAY



GENERAL VIEW FROM FORECOURT



THE GROUND-FLOOR PLAN

NEW STATIONS, RICHMOND AND SURBITON, FOR SOUTHERN RAILWAY

THESE two recently completed new "Southern" stations, at Richmond and Surbiton, show how admirably the Southern Railway have applied modern design and construction to their proper ends. They are to be congratulated on the results. All unnecessary fussy details, often so prominent in the past have been eliminated, reliance being placed on good lines and general good proportions.

The plans show the general layout and planning of the booking hall and other accommodation. The Surbiton station is constructed in reinforced concrete. The Richmond building is steel-framed, and is faced with Portland stone. The interior wall surfaces at the moment are plain plastered, but fresco paintings of a decorative character are to be executed in certain parts of the walls.

The coloured glass screen at Richmond station, executed by Mrs. L. E. Sutherland, shows the extent of the company's system. The screen is a good example of the use of brilliantly coloured glass, used as a map, adding life and interest to an otherwise dull statement of "routes."

The screen is based on the company's slogan, "South for Sunshine," showing brilliant sunshine over land and sea, the wavy, deep blue glass giving a fine suggestion of life and movement.

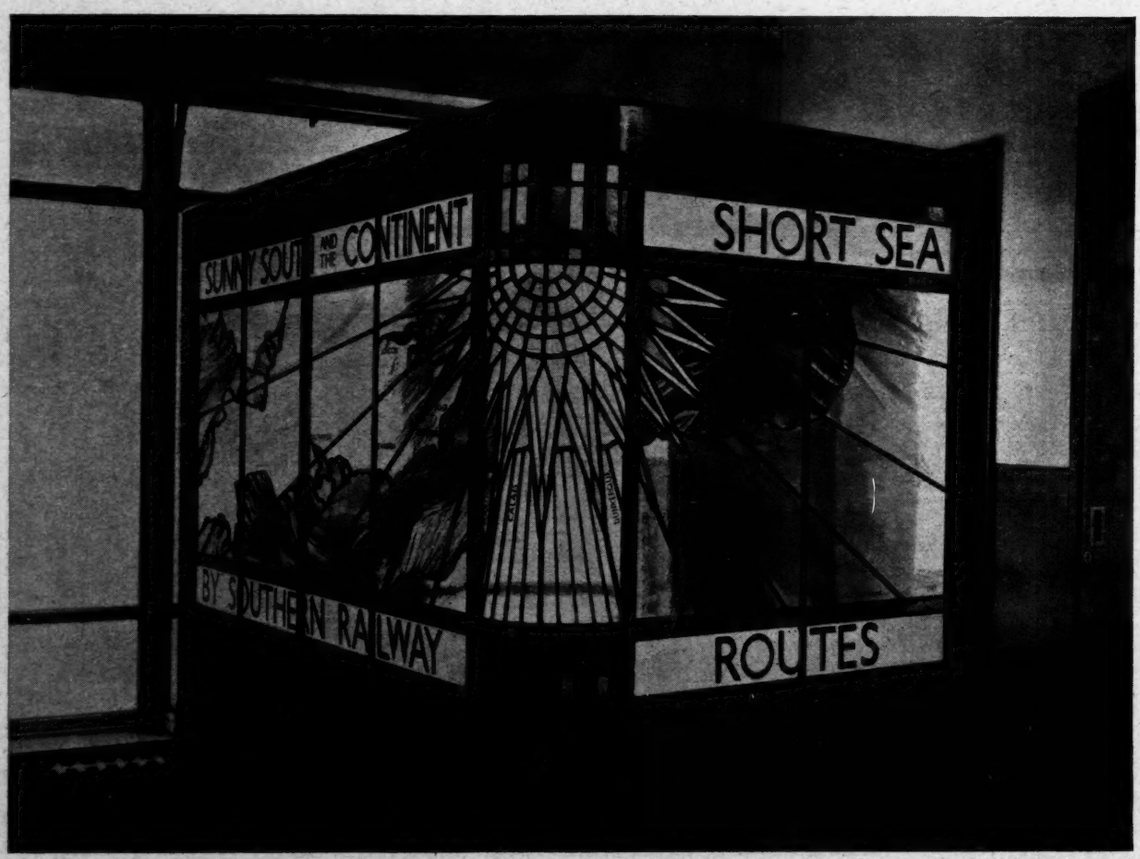
Following are the names of the firms engaged on these buildings:—

Richmond Station.

The general contractors for the main buildings were Messrs. F. G. Minter and Co., Ltd., of Putney. Messrs. Tersons were the general contractors for the platform buildings. Sub-contractors were: Steel sashes, Morris-Singer, and Luxfer, Ltd.; sanitary fittings, Jennings and Co., Ltd., and John Bolding and Co., Ltd.; lavatory partitions and wall linings, Art Pavements and Decorations, Ltd.; marble wall linings, J. Whitehead and Sons, Ltd., and Fenning and Co., Ltd.; hardwood floors, Noel Floors, Ltd.; wood block flooring, Hollis Bros. and Co. Ltd.; granite plinths and granite thresholds and surrounds, Brookes, Ltd.; ironmongery, Nettlefold and Sons, Ltd.; collapsible gates, Haywards, Ltd.; collapsible shutter gates, Caston and Co.; roller shutters, Haskins, Ltd.; Still's apparatus, W. M. Still and Sons, Ltd.; ventilation, Sturtevant Engineering Co., Ltd.; staircases and balustrading, F. A. Norris and Co., Ltd.; tiled slab partitions and tiling to walls, Carter and Co. (London), Ltd.; heating, Young, Austen and Young, Ltd.; fittings for flag masts, Cecil Ern and Co., Ltd.; ticket office fronts and fare frames, Gardiner, Sons and Co., Ltd.; box canopy fascia and laylights, H. H. Martyn and Co., Ltd.; bar counter, etc., F. G. Minter, Ltd.; bronze metal lettering to main façade, Nash and Hull, Ltd.; glass sign fascias, Pollard and Co., Ltd.; poster frames, Bassett and Findley, Ltd.; train departure book stand, G. Johnson Bros.; electric light fittings, booking-hall lighting, Troughton and Young, Ltd.; mosaic floors and terrazzo floors and stairs, Rust's Mosaic Co., Ltd.; roof lights, J. A. King and Co., Ltd.; steelwork, E. C. and J. Keay, Ltd.; floor tiling, Fenning and Co., Ltd.

Surbiton Station.

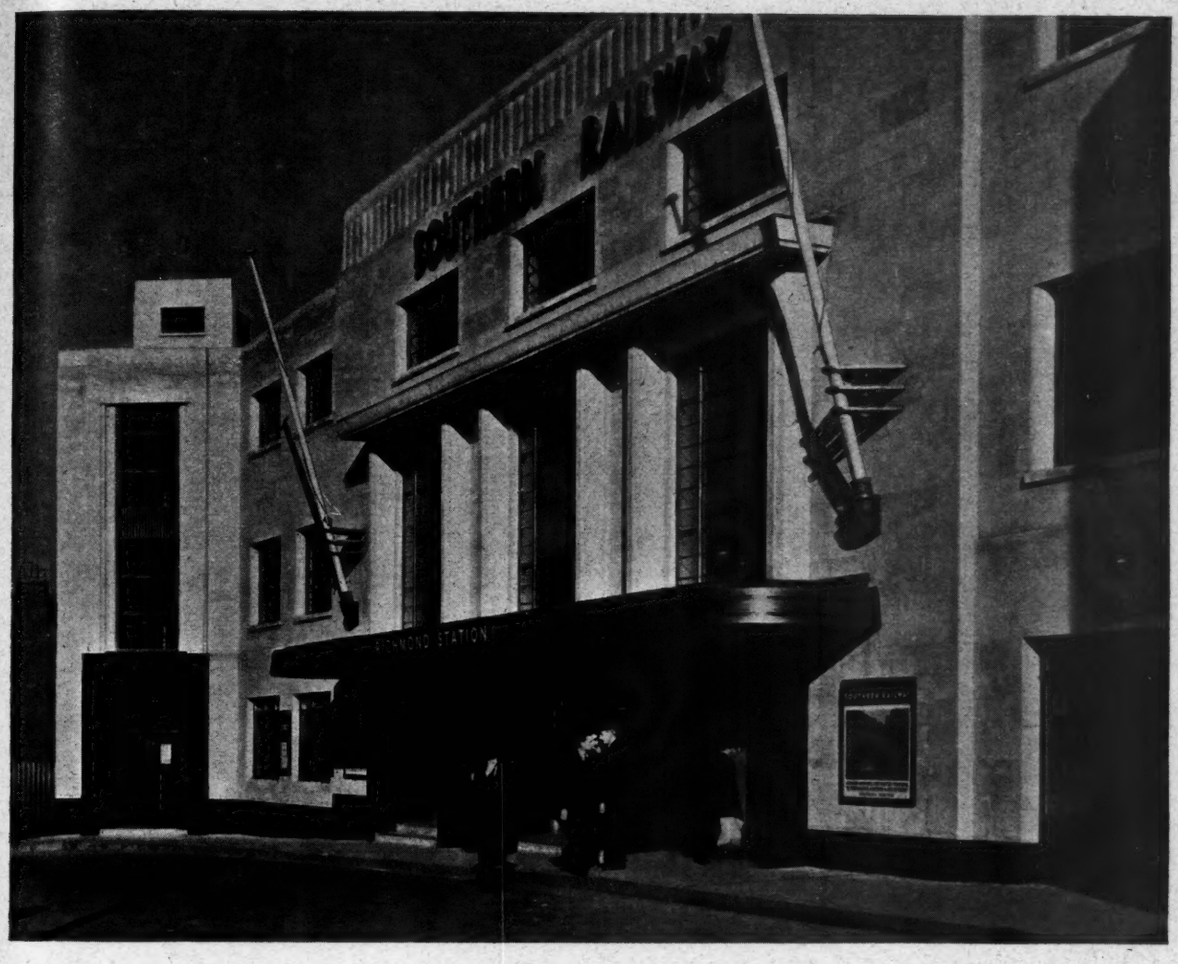
The general contractors for the main buildings were Messrs. F. G. Minter, Ltd., and general contractors for the platform buildings Messrs. Tersons. Sub-contractors were: Sanitary fittings, John Bolding and Sons, Ltd.; steel sashes, James Couper and Co., Ltd., George Jennings-Hamer (Windows), Ltd., and F. A. Norris and Co., Ltd.; lavatory partitions and wall linings, Art Pavements and Decorations, Ltd., and Slate Slab Products, Ltd.; hardwood floors, Noel Floors, Ltd.; train departure book stand, G. Johnson Bros.; box fascias to canopies, E. Pollard and Co., Ltd.; collapsible shutter gates, Bolton Gate Co., Ltd.; cork slab insulation, Armstrong Cork Co., Ltd.; marble wall linings to booking halls, J. Whitehead and Sons, Ltd.; poster frames, G. Johnson Bros.; wrot-iron balustrading and handrail brackets, C. A. and A. W. Haward; granite, Brookes, Ltd.; central heating, J. Jeffreys and Co., Ltd.; glascrete "Cristol" windows, J. A. King and Co., Ltd.; electric light fittings, Troughton and Young, Ltd.; bronze letters, Nash and Hull, Ltd.; rolling shutters, Haskins (E. Pollard and Co., Ltd.); mosaic floors, Rust's Vitreous Mosaic Co., Ltd.; asphalt, General Asphalt, Ltd.; and floor tiling, Fenning and Co., Ltd.



GLASS SCREEN TO ADVERTISING KIOSK, RICHMOND, SURREY.

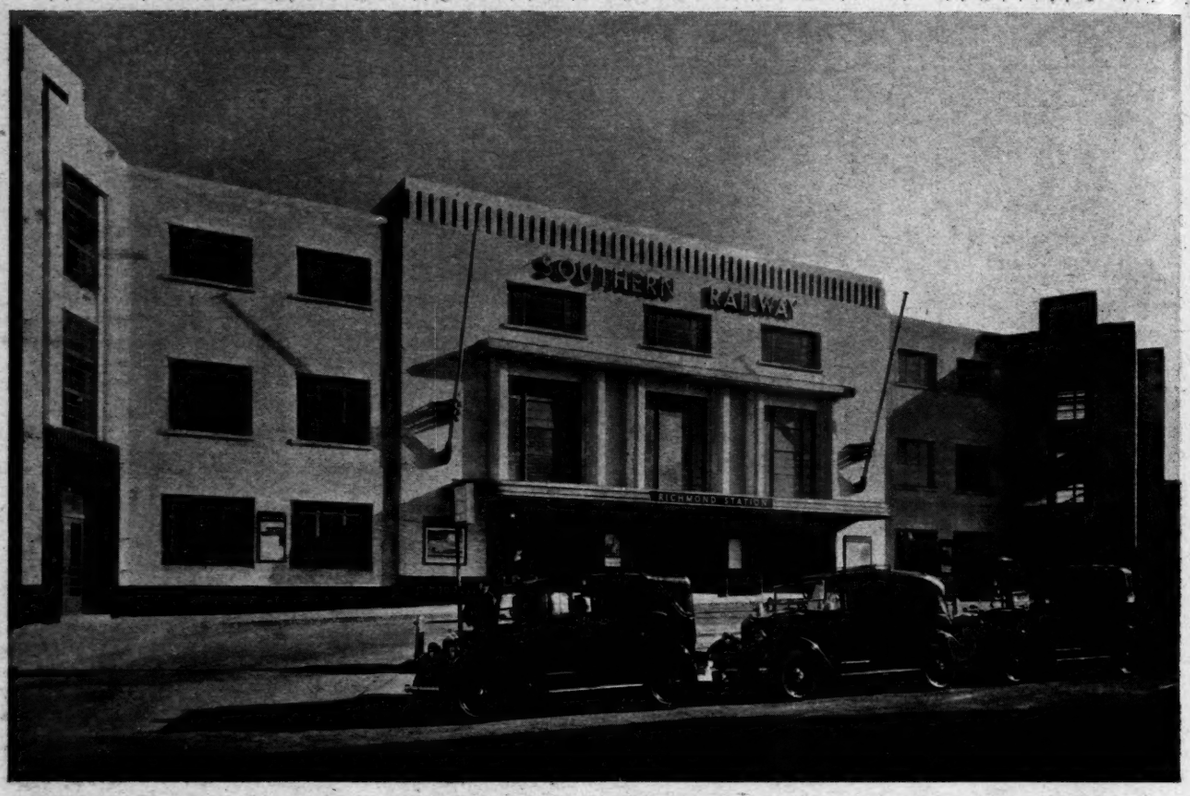
EXECUTED BY MRS. L. E. SUTHERLAND, A.B.M.G.S.

NEW STATION AT RICHMOND, SURREY, FOR SOUTHERN RAILWAY

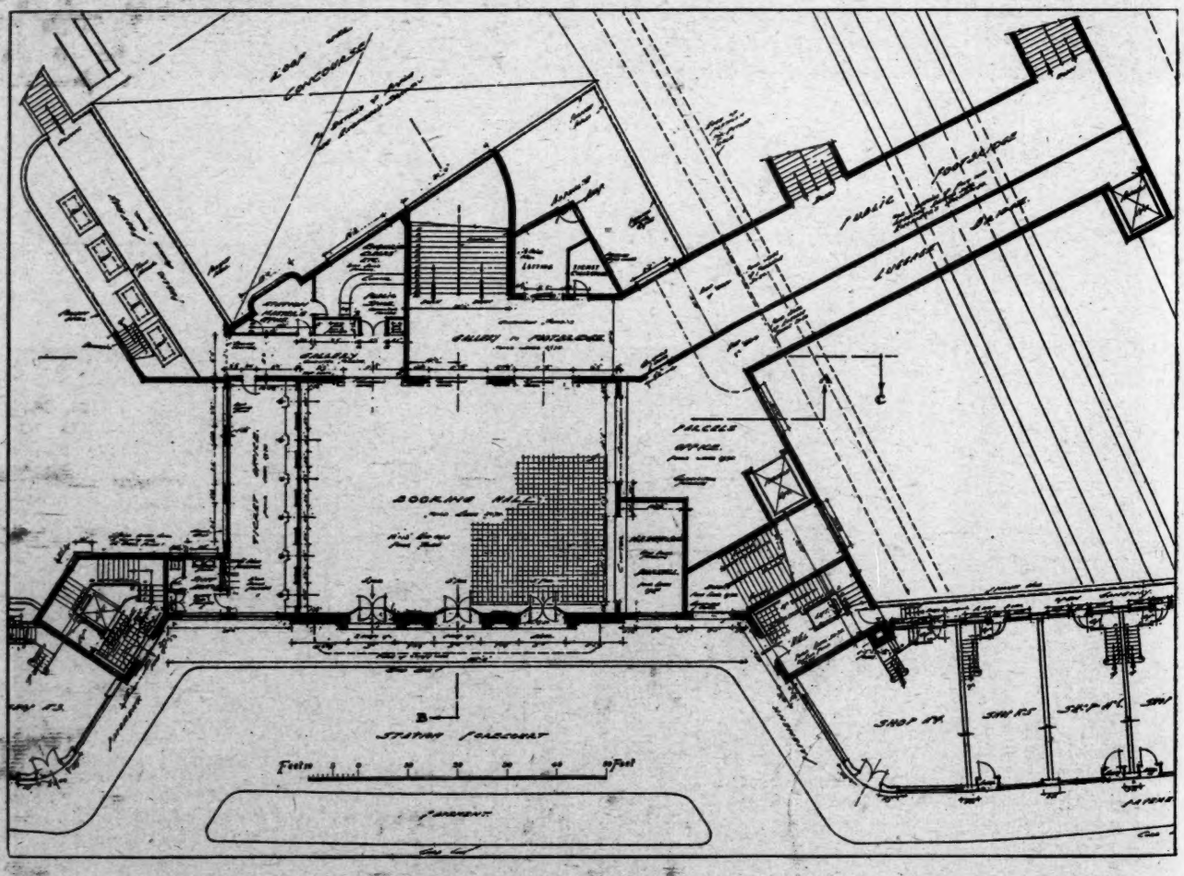


DETAIL OF MAIN ENTRANCE.

THE BOOKING HALL.



GENERAL VIEW FROM FORECOURT.



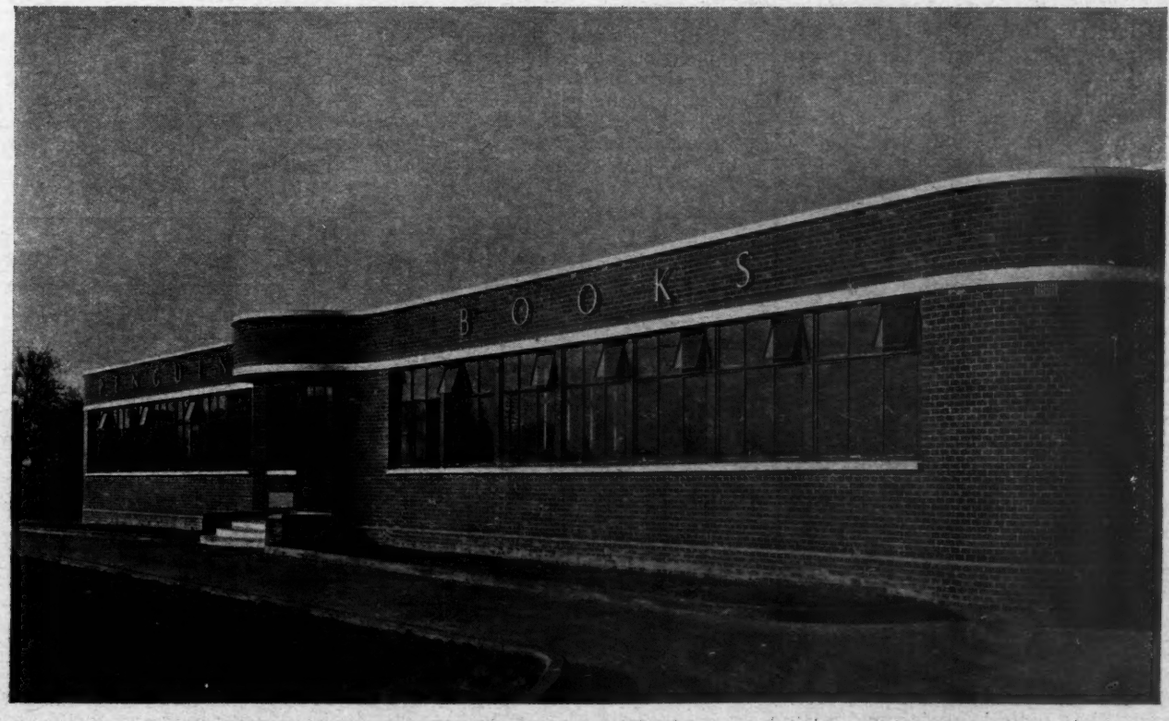
THE GROUND-FLOOR PLAN.

NEW STATION AT RICHMOND, SURREY, FOR THE SOUTHERN RAILWAY.

A BOOK WAREHOUSE, BATH ROAD, HARMONDSWORTH.

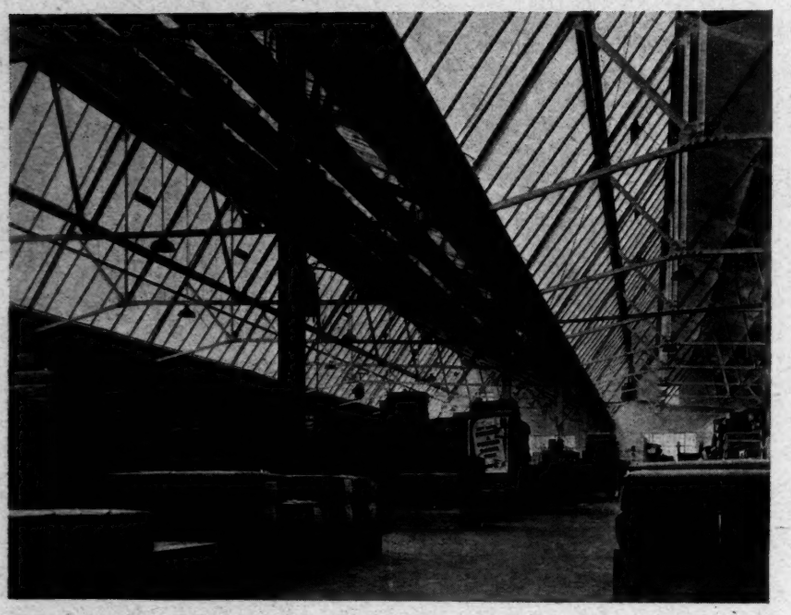
MESSRS. STANLEY PEACH & PARTNERS, ARCHITECTS.

On Right : DETAIL OF ENTRANCE.
Below GENERAL VIEW.



A BOOK WAREHOUSE, BATH ROAD, HARMONDSWORTH.

MESSRS. STANLEY PEACH & PARTNERS, ARCHITECTS.



INTERIOR OF WAREHOUSE.

DESIGNED to serve as a distribution centre for Penguin Books, Ltd., this building is situated on a level site on the north side of the Bath-road at Harmondsworth. In working out the scheme, the architects, Messrs. Stanley Peach and Partners, were presented with a combination of problems which by their nature are becoming increasingly common with the expansion and growth of modern light industries and enterprises.

Briefly, the architects were instructed that the main purpose of the building was to house and store large quantities of the Penguin books, as delivered from the printers, to be stacked and sorted for redistribution, and the main essential was to provide the largest possible floor space for the money available. At the same time, it was necessary to bear in mind that the future demands on the building might be considerably increased, and an expansion of both the warehousing and office space must be visualised.

In solving this problem, two loading docks were provided, one each for delivery and despatch, and both giving direct access to the warehouse from the road. These docks are sufficient in size for any future requirements, and land is available at the rear for the warehouse to be extended for a considerable distance in this direction.

The office accommodation has been planned to the front, facing south, and in this instance expansion has been provided for by making the steelwork sufficiently strong to take another floor over.

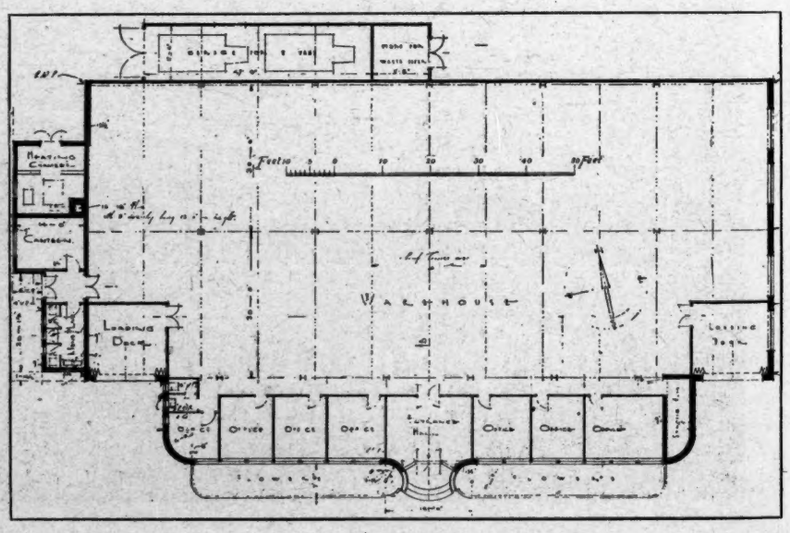
The elevation has been designed in keeping with these elastic requirements, and the simple horizontal treatment adopted is schemed for another floor if required, the parapet level to be the cill line of the windows over.

The central projecting feature over the front entrance would form a balcony in the event of another storey being added, or could be utilised as a base for a sculptured Penguin feature. The Penguin motive has not as yet been embodied in the design, but the whole treatment of the elevation has been schemed with this in mind. Eventually, it will either form a simple dignified background to a pool with live penguins in the foreground, or, alternatively, a suggestive base to the sculptured penguin mentioned above. A novel feature is the curved canopies in front of the loading docks which carry back the curved lines of the front elevation and connect this suitably with the warehouse at the rear.

The warehouse consists of a light steel framework with steel trusses supporting north light roofs. The long slope of the roofs is covered with boarding and asbestos slates. The external brickwork is faced on the principal front with golden-brown hand-made facing bricks, the windows are standard metal casements, and the metal entrance doors are made to match and line with them. The flooring in the warehouse is concrete, and in the offices pitch pine blocks. The building is heated by means of unit heaters, operated from a central low-pressure hot-water system.

The quantity surveyors were Messrs. W. F. Fidgen and Son, and the general contractors Messrs. David Scott (Builders), Ltd., of Watford.

The principal sub-contractors were as follows: Dawnays, Ltd., steelwork; W. T. Lamb, bricks; Johnson's Reinforced Concrete Co., Ltd., reinforcement; Crittalls, windows; Hill's Patent Glazing, glazing; Young, Austen and Young, heating; W. F. Ferguson, electric light; Potter Rax, shutter gates; Evos Doors, Ltd., doors; Calders, Ltd., pine-block flooring; Joseph Chater, sanitary fittings; and Nettlefold and Sons, Ltd., door furniture.

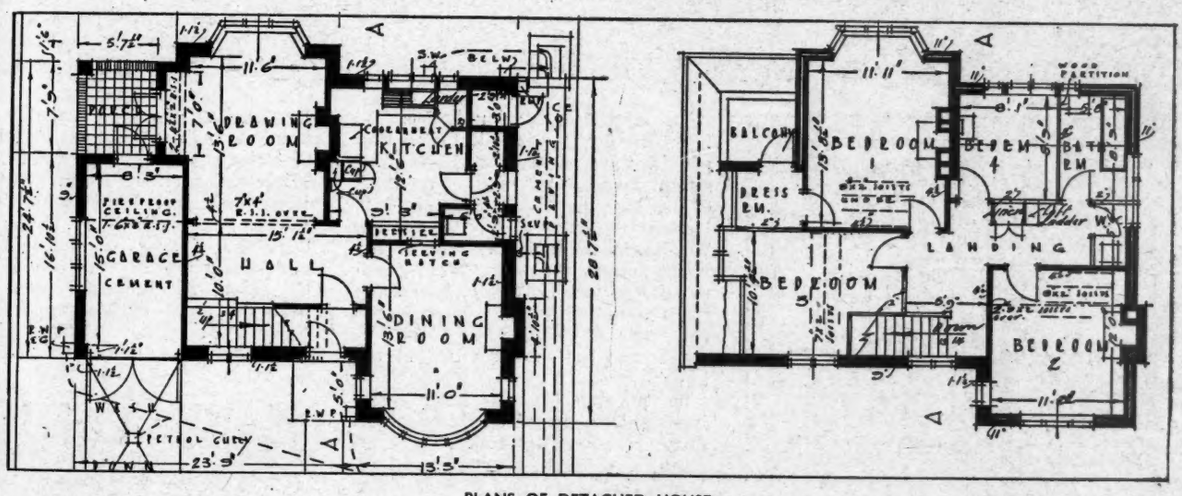


THE PLAN.

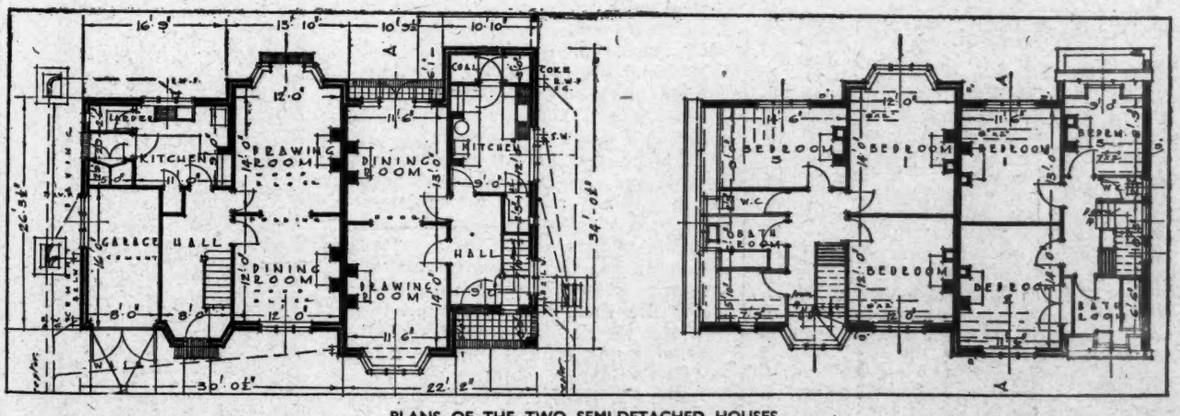
SPECULATIVE HOUSES, GURNEY DRIVE, HAMPSTEAD GARDEN SUBURB

MR. CECIL G. BUTLER, F.R.I.B.A., ARCHITECT.

Left: DETACHED HOUSE. *Right:* TWO SEMI-DETACHED HOUSES.



PLANS OF DETACHED HOUSE

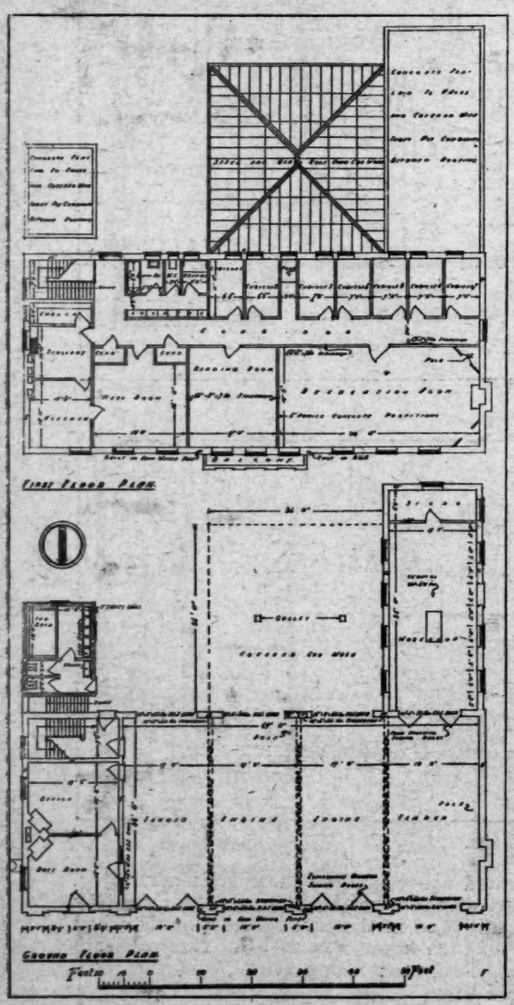


PLANS OF THE TWO SEMI-DETACHED HOUSES.

CONSTRUCTIONALLY speaking, the better-class speculative house, erected by builders to their own design, is often as sound a job as could be desired. Where the architect can supplement such builders is in regard to designing houses which shall avoid monotony of plan and design, and give interest to a road or estate. The houses illustrated above achieve these ends admirably. They form part of a number built in the same road by a builder for sale, and in the case of the semi-detached pair the plan of each house was varied. The walls are faced with multi-coloured facing bricks, and the roofs with sand-faced tiles.

NEW FIRE STATION, FOR THE CORPORATION OF GUILDFORD.

MR. J. W. HIPWOOD, M.INST.C.E., BOROUGH SURVEYOR, ASSISTED BY MR. D. G. FAIRBAIRN, M.INST.M.&Cy. E. (DEPUTY SURVEYOR), AND MR. W. T. BUTTRICK, A.R.I.B.A. (ARCHITECTURAL ASSISTANT).



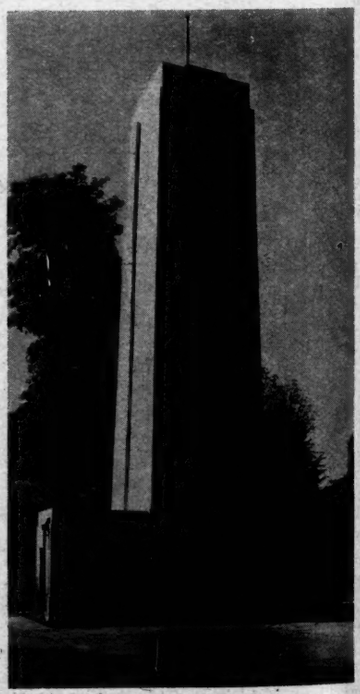
PLANS.

THE new Fire Station houses the four fire-fighting appliances, and provides living accommodation for seven men. The engine room is 69 ft. long by 36 ft. deep, and is heated by radiators on the ceiling. The large doors at the rear of the engine room open on to a glass-roofed car wash. The engine room itself is under constant supervision from the adjacent duty room. A communal bath is provided in the annexe.

On the first floor are seven sleeping cubicles for firemen on night duty, a recreation-room, reading-room, mess-room, kitchen, scullery, larder, bathroom, etc. The alarm bell rings on this floor also, and two steel poles are provided by means of which firemen may slide quickly to the engine room without losing time by going down the stairs. The basement gives accommodation for the heating and hot-water boilers and fuel stores and drying room.

At the rear of the station, in a large concrete drill yard, stands the hose-drying and practice tower. This tower is built of reinforced concrete, and is 58 ft. high. It is divided into two compartments vertically, one for hose-drying and one for fire drill and ladder practice. Under the drill yard are three concrete water tanks, holding in all 6,000 gallons of water.

Mr. W. L. Evershed, F.S.I., was the quantity surveyor, and Mr. C. W. Screeves was the clerk of the works. The general contractors were Messrs. R. Holford and Co., Ltd., and the following carried out work under sub-contracts:—The hose tower, H. and J. Taylor, Ltd.; stonework, Bath and Portland Firms, Ltd.; suspended floors, Attoc Blocks, Ltd.; heating and domestic hot water, The Aquaheat Co., Ltd.; electrical works, Bowden and Higlett, Ltd.; steelwork, Dorman Long and Co., Ltd.; wood block floors, Vigers Brothers, Ltd.; and "Duromit" tiles for engine house and workshop floors, The Kleine Co., Ltd. Electric and other door gear was made by Messrs. William Newman and Sons and supplied and fixed by Yannedis and Co., Ltd.



FIRE TOWER.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

SPECULATIVE HOUSE-BUILDING.

MR. S. C. RAMSEY, F.R.I.B.A., delivered a paper on "Speculative House-Building" at the Royal Institute of British Architects on Monday, March 21. The President (Mr. H. S. Goodhart-Rendel) was in the chair.

After a few introductory remarks, MR. RAMSEY said the origin of the speculatively built house, as they knew it, was to be found in the industrial revolution of last century. Owing to the rapid increase in the urban population of that period, people had to be housed rapidly in the new centres of industry. The result was that they had in sharp contrast two developing and to some extent antagonistic ideas—the one an attempt by the builder to satisfy the practical needs of the new industrial workers, and the other that of the architects following a line of remote æstheticism. These urban and suburban houses were, in a sense, forerunners of the modern flat-roofed functional type, which might, perhaps, be described as the villa become vocal. A new sort of town dwellers had arisen; they were not cottagers, but artisans, and all their instincts were urban as opposed to rural. Even to-day the majority of architects—as instanced, for example, in the work (and very good work it was) that was done in the immediate post-War housing—based their designs on the "cottage" unit, the traditional unit for small houses. This cottage design had been the model followed with varying success by most Local Authorities in their rehousing schemes. There was in consequence amongst the better-paid artisan dwellers a certain antagonism to these houses, for two reasons: Firstly, they represented a subsidised type of dwelling which affronted their sense of independence, and therefore anything, however well designed, that looked like a council house, was antipathetic; and, secondly, and he believed this to be a reason which went much deeper, there was the recoil of the urban from the rural. That was particularly seen in the plan. What was known as the "Universal" plan of to-day was, he suggested, nothing more than the old Georgian town house shorn of its attics, its basements, and its back additions, and limited in size to the needs of the family unit of to-day.

Since the War they had built some three and a half million houses, some two million of which had been built by private enterprise, and it was that unprecedented volume of domestic building, both by private enterprise and by Local Authorities, that had made them aware of the immensity of the problem. The ready-built house was as much a necessity to-day as ready-made boots and shoes, ready-made clothes, and ready-made motor-cars.

"Architects and superior people generally," proceeded the lecturer, "are apt to use the word 'speculative' to imply a patronising contempt, and yet why should it be any worse to build a house for sale for profit than it is to make a pair of shoes or a motor-car? It is largely a matter of standards, and it is indicative that those we know as 'speculative builders' have of late changed their name to that of 'house builders.' Generally speaking, I submit that the 'house builder,' to give him the name he prefers, gives very good value for money, and the type of structure and plan, accommodation and appurtenances that suit his public. The appearance of the houses is not always quite so happy, and in spite of the improvements—and there has been a marked improvement during the last decade—there are far too many houses built which do not conform to any reasonable standard of design.

"We are apt to use the word 'jerry-builder' without much discrimination; it is a term that means different things to different people. As frequently used by architects and the writers in our more serious papers when they speak of the evils of ribbon development and the spoliation of the countryside, something more than 'structure' is implied; in fact, the word 'design,' which covers not only structure, but plan, grouping, siting, and the preservation of amenities, is what they are really criticising. In the large amount of post-War house-building, that there has been a certain amount of bad work in structure must be admitted, but I think that it must also be admitted that this amount has been greatly exaggerated, and that when many of us speak of 'jerry-building' we really mean 'jerry designing,' or that hasty improvisation in dealing with structures both as units and groups. Now, if blame is to be apportioned, who is responsible for the admittedly low standard of much of the post-War domestic building both by private enterprise and by local authorities?"

Continuing, the speaker said that possibly his own case was the case of some others. Before he knew anything of building societies he had little doubt in his own mind that the "speculative builder" was the cause of all their troubles. Afterwards, when he became associated with the building society movement, in the early days of such association he put the blame on the building societies. Some little experience and consideration of the problem, however, had shown him that behind both the house-builder and the building societies was that vague and amorphous entity known as the public, and it was on the goodwill of the public that both house-builders and the building societies depended. If, then, the public were ill-informed—or, if they preferred the term, "ill-educated"—in everything that constituted a good house, who was responsible? He suggested that if any finger of scorn was to be pointed, it might perhaps be turned in their own direction. If the architectural profession was anything beyond a pleasant means of making a livelihood, and was in any sense a guardian of the nation's buildings, then surely the failure on the part of the public represented some measure of failure on the part of the profession!

There were, if he might use a simple analogy, a triangle of forces representing the factors which could provide for better houses. These factors were, first, the building societies, who found the essential money. Their responsibilities were mainly financial, and it was not their direct duty, he submitted, to concern themselves with either questions of structure or design, except in so far, and this was a very wide term, except in so far as they were represented in value. The building societies should be aware, and they were to a far greater extent than was sometimes assumed, of what constituted a well-designed and well-built house. Generally speaking, the well-built house (and in this term he included good design), all things being equal, afforded a greater factor of safety than the not so well built.

It might be argued, however, why did not building societies insist that all houses should be designed by architects before they made advances, which would be a very desirable state of affairs for the architectural profession? But if they had too well-designed and too well-built a house in the wrong neighbourhood, instead of its being an asset, it might well become a liability to the building society advancing upon it if the society was ever so unfortunate as to have to realise.

The most they should expect of their building societies, if they were to function properly, was that they should be alive and sympathetic to the higher standards of design in their houses representing desirable, and they hoped in the not too distant future obtainable, higher standards of life.

The second of his forces was represented by the builders, and their concern was in particular that of structure. When a builder spoke of a well-built house he usually meant a house built of good materials with the use of good workmanship, sometimes irrespective of whether the house was well planned and well placed. There was, the speaker suggested, such a thing as a too well-built house, although possibly this might seem a contradiction in terms.

The average life of the ordinary mass-produced house was, he suggested, some 30 to 40 years. After that it began to deteriorate in value, until after some 50 or 60 years it became definitely out of date. Every purchaser of a house had a right to expect that he should get good value for money, but it was unreasonable to expect a Rolls-Royce for the price of a Ford. The means should be pre-determined to the end, and it might be desirable to definitely fix the life of houses and provide means for their replacement on a financial basis. That builders were peculiarly and rightly sensitive to aspersions on their good name by the malpractice of certain of those who called themselves builders was shown by the recent formation of the Council of Registered House Builders, which provided a scheme for ensuring that a house should be built to an approved specification and a certificate issued to the purchaser of a house, which stated that the house had been so built, providing safeguards in cases of default. This scheme had had the blessing of their Institute, and did, in his opinion, deserve every encouragement. The specification, which was the result of long and careful consideration, aimed not at the highest standard of building but at a reasonable average standard to give a reasonable average purchaser fair value for money.

Now amongst many house-builders there was a veiled, if not open, hostility to architects, and this not altogether without reason. In many cases architects who had essayed to design houses for sale had, unfortunately, placed themselves in the position of barristers who had not studied their brief. They had taken on their job much too light-heartedly, and instead of working in close collaboration with the builders in an endeavour to ascertain the real needs of the people who had to live in those houses, they had imposed their own ideas, in many cases with disastrous results. Happily, many house-builders did work in friendly relation with architects, and the result had been a notable improvement in the houses. This tendency was growing, and of the plans submitted to building societies to-day some 20 per cent. were designed by architects, whereas some 10 years ago it would have been probably safer to have put the figure at some 5 to 10 per cent.

The last of his forces composing the triangle was the architects, and theirs was, as he had attempted to indicate, a great responsibility. Not only was the responsibility particular to those who design the houses, but it was a responsibility which must be shared by the whole profession. Their field of study was the immediate and the implicit needs of the public or of various sections of the public. He had heard architects say that it was impossible to do anything with the plan of the average speculative builder's house—which was known to-day as the "universal plan," *i.e.*, three bedrooms, bathroom, w.c.,

two living-rooms, kitchenette—as they could not do anything with this as a unit of a design. They, therefore, in an endeavour to provide some alternative, attempted to press what was really not an "urban" plan, but a "country" plan, on the public, and the result was a foregone failure! The long-fronted, narrow house with back to front sitting-room on one side and a living-room kitchenette on the other was not popular amongst the superior artisan or the lower-paid "clerical" classes, and this for certain reasons. In such houses the life of the family was frequently carried on in the rear living-room and the front room was used for the more serious family occasions, such as the reception of distinguished visitors, etc. These were the fundamental needs of one section of the community, and although the long-fronted house might suit a more sophisticated section, it did not suit that.

After all, was it more difficult to take the accepted "universal" plan, which he, for one, would not admit was incapable of improvement and development, and use it as did the builders in Georgian times use the plan of the typical London house, which they developed into so many magnificent squares and terraces?

From what he had said they would realise that the problem, so far from being susceptible to an immediate and easy solution, was an extremely complicated one, comparable to the complexity of modern life.

He had said that the problem was one of major importance to the architectural profession, and his reason for saying so was that he could not conceive how any great architecture could arise from a sub-stratum of poorly and meanly designed private dwellings. The dwelling-house was the structure around which the most intimate and sacred memories of a man's life ranged. If he had no care for the architectural interpretation in its highest terms, *i.e.*, if he did not wish the dwelling in which he lived and loved to be as good as it could be, how then could they expect him to have that altruistic affection for the more important buildings of the community in which his public acts were performed.

He had attempted to give them an idea of some of the converging influences which were making for better design, and it was in the "design" that they, as architects, were particularly concerned, but beyond his triangle of forces there was the public as represented by the State. Their contribution was by control through legislation.

It must not be assumed from what he had said earlier on that the whole of the public was indifferent to the question of improving the design of those houses. There was a sufficiently informed body of public opinion to make it possible for Parliament to pass the 1932 Town and Country Planning Act, Clause 12 of which gave Local Authorities power to control elevations.

In conclusion the speaker said: "May I make a few practical suggestions as to how, as a profession, we can make our influence felt in dealing with this baffling and difficult problem?

"1. By insisting, in and out of season, on the need of qualified advice for Local Authorities and others who control such building.

"2. By doing all we can to assist the Panels either by direct service or otherwise.

"3. By lectures and articles.

"4. By encouraging the study of the problem in our Schools of Architecture."

Discussion.

Sir Harold Bellman, M.B.E., J.P., Chairman and Managing Director of the Abbey Road Building Society, who proposed a vote of thanks to Mr. Ramsey, described the paper as being an extremely interesting survey of a most topical subject. But perhaps it would not be regarded as untoward of him if he called attention to the liberal application of whitewash which Mr. Ramsey gave to the movement which it was his privilege to represent. Building societies were getting increasingly conscious of a definite moral, if not legal, responsibility, and as time went on he thought it would be even more manifest. There was also a general reform in house design and construction, and he believed that the trend was upward and in the right direction. He attached considerable importance to the first of the four suggestions made by Mr. Ramsey at the conclusion of his paper—the need for qualified advice. Many local authorities took the advice of their engineer, who might know all about engineering and the construction of roads, etc., but certainly was not a qualified architect.

Mr. J. W. Laing, Director of Messrs. John Laing and Son, Ltd., who seconded, said he felt very keenly the tremendous opportunity they had lost in the last 20 years in not trying to maintain the beauty of England. Mr. Ramsey had attached some blame to builders, some to architects, but he had not attached much blame to the public. In improving the houses of Great Britain they had to work with goodwill and tactfulness in educating the public. He believed a great deal could be done by supporting the panels which had been mentioned, but he considered that the panels should consist of a representative of architects, a representative of builders, and a representative of the public. Every building in Britain should be approved by the panel.

Major H. C. Corlette said Mr. Ramsey had mentioned the lack of support from the educational side of architecture with regard to the problem. He had often tried to advise young men about planning and designing, and he had always said "Why do you not start on a small cottage?" He had found in the schools that there was little attempt to try to teach men how to design a cottage in their first two or three years. He believed that men should know how to design a cottage before they had finished their third year, but had found that numbers of men could not do it. Among the reasons why a cottage was so important were the points that there was no money to waste, not an inch to spare in planning, and it needed concentrated thought from start to finish. He commended to those representatives of architectural education who were present that they should see to it that the schools insisted on training men to plan cottages.

Professor A. E. Richardson said one of the points he had gleaned from the paper was that they were prepared as a nation to accept sordid ugliness. They knew of the evil and of its curious effect on them, but who amongst them dared do more than point out the obvious? They had sold their birthright for a mess of cottages. They knew of the evil of those rabbit hutches—houses at 16s. 2d. and other prices on the never-ending system, but what were the remedies? He would suggest the revision of the building by-laws and the appointment of qualified architects.

Mr. T. A. Darcy Braddell said nobody agreed with Major Corlette more than he when he pointed out that to design a good cottage was to make good architecture, but he had failed to find a school where that problem was not tackled before the third year was over. Cottage building was not speculative building. If the schools were to take on the question of speculative building they might do good work, perhaps; they would produce designs for speculative building which certainly would be good architecture, but they might not be a success as speculative building. The only way they could improve speculative building was to educate the people who lived in the houses; there was no other way. You could not palm off a bad car because most people knew something about them, but you could palm off a bad house, and they would continue to do so until people knew the difference between good and bad architecture.

Others who took part in the discussion were Dr. Albert Mansbridge, Mr. Norman E. Wates and Sir J. Walker-Smith, Director of the National Federation of Building Trades Employers. Mr. Ramsey briefly replied to the discussion.

MEMBERSHIP.

At a Council meeting of the Royal Institute of British Architects held on Monday, March 7, the following members were elected:—

As Hon. Associates.

T. Barron, J.P. (Glasgow).
J. E. Barton, M.A.Oxon (Bristol).
Sir John Forsdyke, K.C.B., M.A., F.S.A. (London).
Mrs. Quennell (London).
Sir Ernest D. Simon, M.A., M.Inst.C.E. (Manchester).
R. J. Whistler (London).

As Fellows.

E. W. Banfield (London).
S. E. D. Bower, M.A.Oxon., A.A.Diploma (Queendon, Essex).
O. H. Leicester (London).
P. V. E. Manger, M.T.P.I. (London).
W. Ross, F.S.I. (Glasgow).
A. Hick (Hull).
W. H. H. Marten (Leeds).

As Associates.

P. M. Alexander (School of Arch., Cambridge Univ. and the School of Arch., Victoria Univ., Manchester) (Timperley, Cheshire).
I. S. Gavin (Sch. of Arch., Edin. Coll. of Art) (Edinburgh).
J. H. Glover, Dip.Arch. Edin. (Sch. of Arch., Edinburgh Coll. of Art) (Edinburgh).
A. P. G. Jones, Dip.Arch. (L'pool) (Liv. Sch. of Arch., Univ. of Liv.) (Liverpool).
P. L. Joseph (B'ham Sch. of Arch.) (London).
A. W. Jones (Sch. of Arch. Victoria Univ., Manchester) (Knutsford-Cheshire).
K. A. Lloyd (B'ham Sch. of Arch.) (Oaken, Staffs).
K. Morton, B.A.(Arch.) (Dept. of Arch., Univ. of Sheffield) (Sheffield).
D. M. Pate (London).
N. E. Tarbolton (Sch. of Arch., Cambridge Univ., and the Bartlett Sch. of Arch., Univ. of London) (Birmingham).
A. W. Walker, B.Arch. (Sch. of Arch., McGill Univ., Montreal) (London).

As Licentiates.

R. G. Bospidnick (London).
J. T. Gray (London).
D. W. Joel (Croydon).
N. Pyman (Leeds).
E. G. Stevens (London).

MINUTES.

Following are notes from the minutes of the R.I.B.A. Council meeting held on March 7:—

Election of Royal Gold Medallist, 1938.—The King's approval of the Council's recommendation that the Royal Gold Medal should be awarded to Mr. Ivar Tengbom was formally reported.

Appointments.—Mr. Walter Goodesmith (A.) with Mr. A. H. Barnes (F.) were appointed to the Parliamentary Science Committee, in place of the late Mr. Alan E. Munby.

Mr. J. H. Elliott (Student) was appointed to the Junior Members' Committee in place of Professor W. G. Holford (A.), who has resigned owing to pressure of work.

R.I.B.A. Architecture Bronze Medals: New South Wales.—The award of the jury in favour of the New South Wales Railways Administrative Building, Wynyard-square, Sydney, designed by Messrs. Budden (F.) and Mackey (A.), was formally approved.

New Building By-Laws of the London County Council.—On the recommendation of the Science Standing Committee it was resolved to set up a joint sub-committee of the Practice and Science Standing Committees and the Town Planning, Housing and Slum Clearance Committee to consider the new L.C.C. Building By-laws with a view to their eventual revision.

Membership.—The Council, by a unanimous vote, elected the following architect to the Fellowship under the powers defined in the Supplemental Charter of 1925: Mr. James Nangle, O.B.E. (Sydney), P.-President of the Royal Australian Institute of Architects. The resignation of Matthew Spencer Rogers (L.) was accepted with regret. The following members were transferred to the Retired Members' Class: As Retired Fellow, Joseph George Oatley. As Retired Associate, Alfred Harry Gloyne. As Retired Licentiate, Tom Woolnough.

Town Planning. Tour of Scotland.

Town Planning Conference, followed by a tour of Scotland, to be held at Whitsuntide, is being arranged by the Garden Cities and Town Planning Association. This begins at Glasgow on Friday morning, June 3, in the grounds of the Empire Exhibition.

Full particulars of the terms can be obtained from the Secretary, Garden Cities and Town Planning Association, 13, Suffolk-street, Pall Mall, S.W.1.

THE USE AND MISUSE OF BUILDING MATERIALS

LECTURE TO LIVERPOOL ARCHITECTURAL SOCIETY

THE belief that there is considerable dissatisfaction with the selection and the assembling of those materials which are available in this country for building purposes was expressed by Professor A. E. Richardson, A.R.A., V.-P.R.I.B.A., in a lecture to Liverpool Architectural Society on March 9. Eagerness to be original at all costs more frequently than not led to construction which was doubtful. Hence the misuse of good material, the addiction to subterfuge in assembling components, and deterioration in the quality of architecture. The tendency to sameness of formula for the production of elevations, in all quarters of the world, gave one furiously to think. To quote Dryden:—

"Poor mechanic arts in Public move,
Whilst the deep secrets beyond practice go."

"The art of building," continued the speaker, "during the centuries has followed certain trends and has evolved definite methods which have been assigned to be elementary principles. There is no denying the existence of these principles, however designated at any particular time. Of one thing we are certain, and that is that materials cannot be assembled into conventional form unless so predetermined by the intervention of the human mind. The 'idea,' therefore, is, and must continue to be, the paramount factor in the devisement of buildings and the selection and assembling of materials. This is rational, it is logical, and it is sure. Fresh names may be invented from time to time to describe the same process, but the process itself remains constant. Imagination, reason and sensibility are the true theories; all others are merely adventitious aids and fillips to spur the tyro or to stimulate the jaded. Hence the invention of catch-words, shibboleths and isms, which reflect advertising genius.

Building the Scenery to Life.

"The importance of the art of building in providing the scenery in which society is framed is often overlooked. Leonardo da Vinci wrote: 'In life beauty perishes, not in art.' Perhaps this is why a fine building is of relatively greater importance than a host of humans. A building of note is a symbol of a period, to the making of which many forces have combined. That one man, the author of the building, designed it in the spirit of his age is a coincidence, or, rather, the concurrence of the artist and the moment. Human life can be produced at will; a fine building, which is to become a landmark in the hierarchy of art, can seldom be attained by command. Happy, indeed, is the artist who flourishes at a time sensitive to fine work, and who is favoured with Godlike genius. You will forgive these aphoristic lapses and treat them as interludes in the theme I am advancing—*i.e.*, the use and misuse of materials. We are becoming alarmed at the prospect of a spate of ill-proportioned buildings. We are threatened with the supreme misfortune to the art of mere theory obscuring and perverting performance. When we search for the reason why the practice of architecture in England has become one-sided, it is found in the fact that so many take the works of their contemporaries as their standard and imitate these works without knowledge.

"Excessive standardisation of building accessories is another evil which needs redressing. Surely there should be a difference between the assembling of a mass-produced article and the design and equipment of a building of the first class? This latter argument is put forward as a provocative stimulus to urge architects to adopt purpose-made components as far as possible, particularly features which are conspicuous elements in a building.

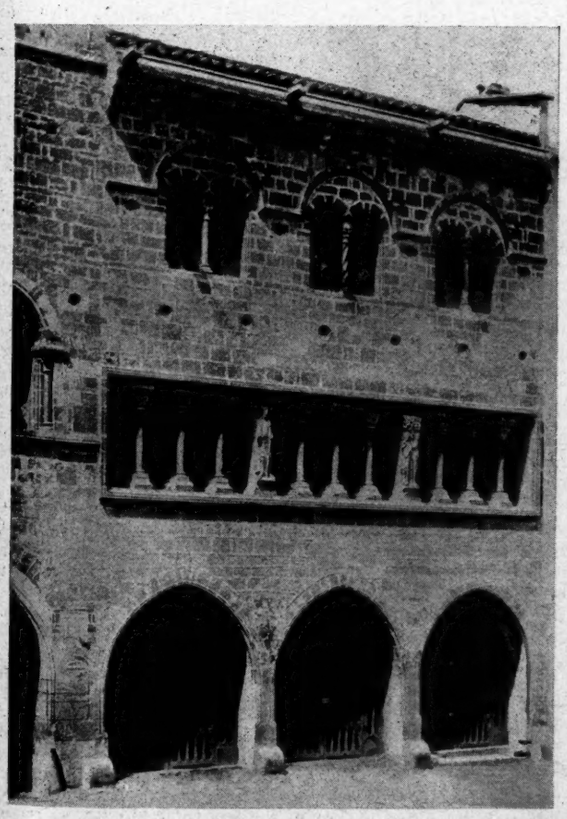
"The great gift of building experience appears to be the right use of appropriate materials, and to this we owe such theories of structure that we possess. Theories which enacted that materials could be wrought and assembled to take certain forms arose, paradoxical as it may seem, from the predetermination of the mind to conquer material."

After tracing briefly the history of materials and their effect upon architecture, the lecturer came down to the early nineteenth century.

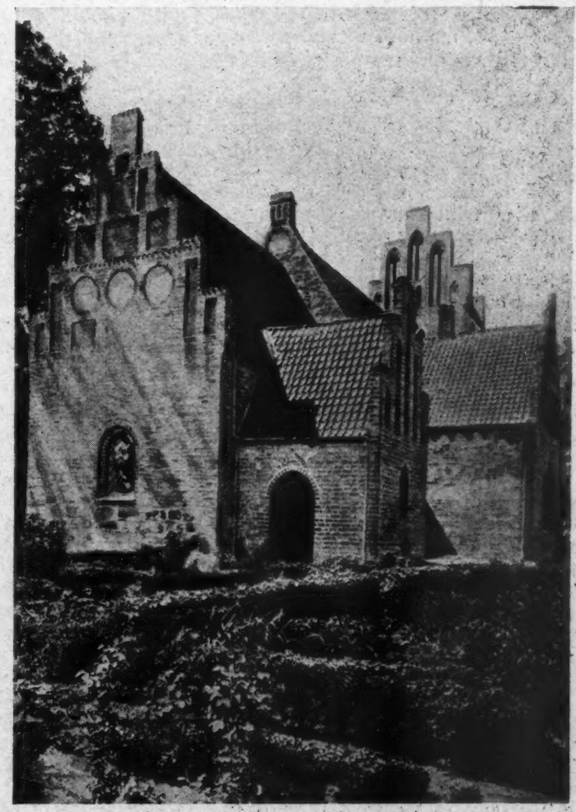
Nineteenth Century the Age of Subterfuge.

"The age of subterfuge," he said, "was dawning. Zinc and patent mastic compositions for roofing, cast-iron for Doric columns and ornamental railings, led to the quest for patents and artificialities and the final display under glass in 1851. A glance at the advertisements in *The Builder* for the year 1846 is illuminating. There are advertisements for encaustic tiles, spiral chimney-pots, fireproof and ornamental cements, liquid oak and mahogany stains, "corrugated patent" galvanised iron roofing, cheap sashes and door-frames, patent asphalt roofing felts, foreign sheet glass, "patent hinges," cast-iron rain-water pipes, heads, shoes and elbows. Papier-mâché for ornaments, sanitary goods, gas-lamps and brackets, etc. The Modern Age had begun. Decline had set in."

It was the misuse of cast and wrought iron, declared the lecturer, that brought



HALL OF CHATEAU, ST. ANTONIN, TARN-ET-GARONNE.



THE SVARDBORG CHURCH, DENMARK.

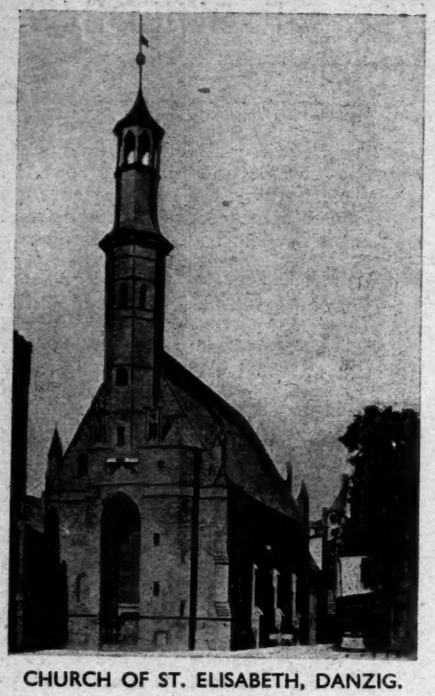
into being those depressing commercial buildings of the late 'sixties and 'seventies, with their unconvincing veneers of stylistic detail.

"The art of building," he continued, "was not only distracted by controversy among architects, as is the case to-day, but the true merits of stone, brick and timber for building became obscured. Machines were actually patented to carve ornaments in wood and stone, such was the desire and inclination to supplant genuine craftsmanship. The intellectual revolt against all this began with Pugin's denouncements and was continued by Ruskin, and later William Morris. Among the architects, Eden Nesfield, Norman Shaw, George Devey and Philip Webb, and later Charles Voysey, strove for a recognition of the best materials and fine craftsmanship.

"For the next 40 years, from 1870 to 1910, there ensued a great revival of the crafts ancillary to architecture. The trades and crafts such as plasterwork, wrought iron, wood-carving, silverwork and furniture-making enjoyed a new period of prosperity commensurate with the times. This was the period of book-reading, of renewed scholarship and of genuine attempts to revitalise the sequence of building. Materials were investigated, and worked, as far as possible, in accordance with proved methods. Steel, and to some extent concrete, was replacing timber for the roofs and floors of important structures. In the field of domestic building intensive study of materials suited to local conditions became the objective. The result was that for the space of ten years—that is to say, from 1900 to 1910—English domestic architecture was regarded to be without compeer. Such are the facts, stated simply, and, I trust, without exaggeration.

"After years of opposition and adverse criticism, steel- and concrete-framed structures have become part of ordinary building practice for great commercial buildings. Both methods of construction admit of infillings and casings of stone or brick. Opinion in France, Germany, Denmark, Sweden, England and America does not vary in the legitimacy of this method of constructing buildings of abnormal size. Smaller buildings of various categories can be built of brick or timber framing, without the aid of steel or concrete, other than a raft of the latter material. In Sweden, China and the United States timber framing for houses, schools and churches is accepted without question. In England various small timber structures have been erected with great success.

"I submit as a suggestion that the study of laminated timber for the framing of roofs, of moderate and even large span, should form part of an architect's training. When it is considered that a forest of timber centering is necessary for certain forms of shoring and underpinning, as well as for concrete formations, there is every argument in favour of the reinstatement of timber as one of the primary materials. The timber cruck, if properly constructed, can be used to support roofs of great span. There is one timber roof in England which has a span of 90 ft. Recent investigation has proved the timber cruck to be 50 per cent. cheaper than concrete for church construction. Roofing materials for pitched or curvilinear roofs range from Delabole or Westmorland slates to cast lead and sheet copper. There are other materials,



CHURCH OF ST. ELISABETH, DANZIG.

such as asphalted and tiled flats, *but inferior substitutes should be avoided at all costs.*

"There is no danger that brickwork will be superseded as a building material, a fact recognised in Holland, Sweden and Denmark. . . . Brickwork admits of adventure in construction and detail, if you appreciate the possibilities and understand the technique. It is a material suited to every part of England except the high places. . . . The misuse of brick is obvious. Need I mention the glaring fault of using brick lintels over fenestration? Bricks 'tumbled on their heads' then appear most unsatisfactory. Brickwork needs to be handled with skill; masses of this material look thin when panelled and treated too consciously. Need I name examples in this or that city, town or village?

"Masonry—the material *par excellence* for what Mr. Bernard Shaw dubs 'impressive buildings'—is still favoured in countries other than our own. In Paris, for example, Creil stone is the recognised material, as is in London Portland stone, and in Stockholm Copenhagen granite. Edinburgh enjoys the proximity of extensive quarries, while the Eire abounds in granite and good building limestones. Is it reasonable to suggest that the curricula of schools of architecture should include a short course of geology? Of recent years stone buildings have suffered severely from a misuse of the material which forms their casing. Shorn of protective bands and crowning members, deprived of every feature, including sills and drips, such specimens of the nudist cult suffer from a species of sweating sickness. In London the absence of adequate features of protection is more than disastrous. The smooth surfaces, rain-swept from the top downwards, take on a patina of carbon and appear neglected within a few months of completion. Hammered stone is to be avoided; there is the danger of starting the material below the surface if such methods are resorted to.

"Buildings constructed of brickwork or of stonework demand fenestration suited to either of these small materials; openings cannot be of exaggerated proportions; the vertical supports should be repetitive and rhythmic. The angles of such buildings should be strong, the field of surface and the contrasts of void to solid in proportion. For all 'Impressive Buildings' we should be truly thankful!

"Buildings constructed solely of concrete are among the wonders of the modern age. Factories, hospitals, railway stations, hotels, blocks of flats, swimming baths, schools, bridges, viaducts, warehouses and tall chimneys are among the many new buildings already in being in Europe, America and England. Concrete construction divides into two categories: (*a*) Massed construction; (*b*) articulated and reinforced structure. The main advantage of concrete is that it can be made to serve any purpose; crucks of novel shapes can be devised to overcome roofing difficulties of great spans. Cantilevers can be projected at whim; slab and cellular formations permit of economic reinforcement; difficulties of rafting and of faulty sites can be overcome by this magic and economic material. It is only natural that the elastic properties of concrete should be exploited. But the misuse of beam, support and cantilever (what might be called pseudo-engineering) remains to be excused.

"At present the chief difficulty is that of avoiding crudity of surface effect. I do not think hammer bushing will meet the objections of inadequate surface finish; neither do I think experiments with coloured surfaces will provide a *via media.* The wonder is that lime-painting has not been tried. The simple expedient of milk paint might answer if this recipe were more widely known.

"To sum up my arguments, I will refer to the strange non-architectural mannerisms which have passed into currency during recent years. Need I quote the interminable horizontal windows, the rounded bow (reminiscent of an obsolescent electric tramcar), the angle abbreviations, the dotted clock-faces, or the 'robotesque' door-handles? Shades of the great pioneers, what has happened to modernism! Realist, impressionist or experimentalist, how can ye tolerate the pseudo art of substitute values and ingenious—nay, diabolical—trickery?"

SCIENTIFIC AND INDUSTRIAL RESEARCH: 1936-7 REPORT

An intimation that the Building Research Station is now taking up the problem of ventilation of buildings and that methods and instruments have been developed which will be first used in carrying out ventilation surveys in existing buildings, is given in the Report for the year 1936-37 of the Department of Scientific and Industrial Research.

The extent to which a wall admits or excludes heat and therefore its effect upon the amount of heat required to keep the room warm is being investigated for different types of wall, in six chambers of 8 ft. cube placed side by side with one wall of each facing north. Tests are being made first with three 9-in. solid walls and three cavity walls, all of Fletton bricks, arranged alternatively.

The Report also notes that in the study of problems arising out of the painting of concrete, plaster, cement, etc., active co-operation has been maintained between the Building Research Station and the Research Association of British Paint, Colour and Varnish Manufacturers.

Reference is also made in the Report to a survey by officers of the Building Research Station of the technique of external rendering as practised in certain parts of the Continent.

LONDON BUILDING BY-LAWS—IV.

By ALFRED H. BARNES, F.R.I.B.A., M.I.Struct.E., and C. ROLAND WOODS, M.B.E., LL.B.

PART II.—MATERIALS OF CONSTRUCTION.

HAVING specified in Part I the loads to be sustained and transmitted to the foundations by the structure of any building, the by-laws proceed in Part II to prescribe the nature and qualities of the principal materials to be employed for that purpose. The list of building materials is a fairly comprehensive one and includes several materials which heretofore have not been controlled in London.

In specifying building materials, full advantage has been taken of the British Standard Specifications (wherever such have existed) with reference to the respective materials. It will be noticed that wherever a British Standard Specification is referred to, the date of the particular specification is mentioned, thereby identifying the by-law requirements with those of a specific document and thus avoiding uncertainty as to the precise requirements of the by-law.

In this connection, the fact must not be overlooked that the Courts, when interpreting by-laws which are enforceable under penalty (and are therefore part of the criminal law of England), would undoubtedly require that there should be no doubt as to the intention of the L.C.C. when they made the by-law under which the penalty is to be inflicted. It would appear that for this reason the Council inserts the date as well as the number of a British Standard Specification in any by-law which makes reference to such a Specification on account of the fact that British Standard Specifications are revised from time to time, the number being retained for the Specification after revision, but the date changed. It might thus happen that a Specification mentioned in a by-law had been amended and given a new date without the builder knowing that there were two Specifications of the same number but of different dates. This would introduce uncertainty into the by-law. It could also be contended that the definition of a Standard Specification by number and not also by date might involve the delegation of power by the London County Council to the British Standards Institution, because the Institution could alter its Specifications as it wished, and they would, when altered, become part of the law of the land enforceable by the Courts under penalty. The London County Council is, of course, not entitled to delegate its powers in such a manner, even if there should be a wish to do so.

Aggregates.

By-law 9 specifies the materials for and sizes of aggregates for reinforced concrete. In the main, the requirements correspond with Regulations 146 to 154 of the Reinforced Concrete Regulations made by the L.C.C. in 1915. The noteworthy differences are that the by-laws omit some of the specific references to permissible and prohibited materials mentioned in Regulations 150 and 151, but compensate for this and any other omissions with the covering requirements that aggregates shall be hard, strong and durable and shall be free from materials liable to reduce the strength or durability of the concrete or to attack the steel reinforcement.

By-law 10 regulating the aggregate for plain concrete specifies, in addition to the materials permitted by By-law 9, hard, well-burned brick or tile and such other material as the district surveyor may approve as of like suitability. The grading and sand content must be such as to produce a dense concrete.

In comparison, the previous by-law made under Section 16 of the Metropolis Management and Building Acts Amendment Act, 1878, required the aggregate for concrete used in the construction of walls to be "clean Thames or pit ballast, or gravel, or broken brick and stone, or furnace clinkers with clean sand," in the proportions of two parts of sand to three parts of coarse material, which had to be sufficiently small to pass a 2-in. ring. With the exception of the limitation of size to that of a 2-in. ring (which is not imposed by the new by-law), the old by-law does not appear to be so definite as regards size and grading as the new, particularly since the former does not define the line of demarcation between sand and coarse material, and makes no reference to the amount of sand which may be naturally included with the Thames ballast gravel, etc.

Sand.

By-law 11.—The requirements as regards sand are practically the same as those laid down in Regulations 146, 147 and 148 of the Reinforced Concrete Regulations, 1915. It is noteworthy, however, that the new by-law shows a degree of reasonableness in not requiring the sand to be more than "reasonably" free from the specified impurities.

Cement.

By-law 12.—For the first time Portland blast-furnace cement and high alumina cement are mentioned in London Building Regulations as permissible cements for building work generally, with the proviso that they may not be mixed together, nor with Portland cement. Portland cement (as in Regulation 144 of Reinforced Concrete Regulations) and also blast-furnace cement are to comply with the respective British Standard Specifications. It must be observed, however, that, as previously mentioned, the new by-laws refer to a definite Standard Specification in each case, whereas the Reinforced Concrete Regulation No. 144 referred to the Specification from time to time in operation, so that the regulation automatically varied with the revisions of the Standard Specification. The requirements of the new by-laws for high alumina cement (for which there is no B.S.S.) are specified in detail.

Water.

By-law 13.—The usual requirement is made as to cleanliness in regard to water.

Concrete.

By-law 14.—The use of lime concrete is not provided for. It will be remembered that this material was specifically permitted in foundations and surface concrete under By-law 2 of the Council's by-laws made under Section 16 of the Metropolis Management and Building Acts Amendment Act, 1878.

It has been recognised that the modern finely ground cement cannot be gauged by volume with sufficient accuracy to secure standard uniformity, and the "proportioning" of concrete is dealt with under the new by-laws in terms of cubic feet of aggregate to the hundredweight bag of cement, thus eliminating the process of measuring the cement. The Reinforced Concrete Regulations* expressed the proportions in terms of volume for all materials, but Regulation 145 provided that "The quantity of cement shall be determined by weight, and 90 lb. shall be deemed to be the equivalent of 1 cu. ft."*

The mixes adopted by the by-laws are actually the same as heretofore recognised, that is to say, the familiar "1 : 2 : 4" and "1 : 6" mixes, for example, are still employed, but they are expressed in terms of 1 cwt. instead of 1 nominal foot of 90 lb. and the volumes of aggregate are proportionately increased. For the sake of brevity, the several mixes are given a numerical designation.

The following table gives the mixes as expressed in the new by-laws side by side with the same mixes expressed in terms of volume of cement in the old way:—

MIXES OF CONCRETE.

	Expressed in terms of weight of Cement to volume of aggregate as in the new By-laws.			Expressed in terms of volume of Cement to volume of aggregate as in the old By-laws and Regulations.		
Designation of Concrete.	Cement (cwt).	Sand (cu. ft.).	Coarse Agg. (cu. ft.).	Cement (cu. ft. of 90 lbs.).	Sand (cu. ft.).	Coarse Agg. (cu. ft.).
I.	1 :	$1\frac{1}{4}$:	$2\frac{1}{2}$	1 :	1 :	2
II.	1 :	$1\frac{7}{8}$:	$3\frac{3}{4}$	1 :	$1\frac{1}{2}$:	3
III.	1 :	$2\frac{1}{2}$:	5	1 :	2 :	4
IV.	1 :		$7\frac{1}{2}$	1 :		6
V.	1 :		10	1 :		8
VI.	1 :		$12\frac{1}{2}$	1 :		10
VII.	1 :		15	1 :		12

It will be observed that the proportions are respectively alike or as nearly so as possible without involving small fractions. The proportion of sand employed in each case is seen to be one-half the coarse material. In the case of the Reinforced Concrete Regulations, it is a specific requirement that the quantity of sand shall not be less than that proportion (Regulation 158), whereas the new by-laws expressly permit a variation either way between two-fifths and two-thirds.

The new by-laws recognise the advance made during recent years in the manufacture and consequent strength of cement and also the importance of its scientific use, and the consequently enhanced strength of concrete. This is evidenced in the high-compression strength required in the tests on concrete and in the provision of a special grade of concrete (designated Quality A), which is subject to still higher test strengths and to more stringent rules relating to tests and supervision. It will be noticed, when considering later by-laws, that there are corresponding advantages in enhanced permissible working stresses in the concrete.

* NOTE.—As a matter of fact, the average weight of cement ground to the degree of fineness usually attained at the present day is about 80 lb. per cu. ft. when gauged in the usual way. The old by-laws for plastering, made under Section 31 of the London Council (General Powers) Act, 1890, required the weight of Portland cement to be "not less than 90 lb. to the Imperial bushel," *i.e.*, 70 lb. per cu. ft.

THE TOWN PLANNING INSTITUTE

PLANNING A CITY.

MR. E. G. CULPIN (President) was in the chair at an ordinary meeting of this Institute, held at Caxton Hall, Westminster, on Friday, March 11, when MR. R. M. FINCH (City Engineer, Nottingham), gave a paper on "Planning a City."

Mr. Finch began by saying that in dealing with a subject such as the town planning of a city, the question immediately arose: what would one have done had it been possible to prepare a scheme 50 years ago, and to what extent would one have been correct in a forecast of future developments? Finding himself now in the position of having to prepare a scheme, what had the history of the past taught him to guard against; and what effect would that have on his attempts to guide or restrict future developments? He went on to enumerate the changes that had taken place in the last 50 years in the use of highways; housing; the increase in public, educational, health and social services; industrial development, and the advance of commercial aviation. Some of these developments might have been foreseen, but not to an extent as to compare with the magnitude of present-day schemes.

The policy of slum clearance offered a wonderful opportunity, of which up to the present some authorities had failed to take advantage. We always readily allocated blame, and in this case legislation might be at fault, as, for example, in the facilities that were provided under the Housing Act, 1936, for local authorities to re-house on cleared sites. Generally these sites were very unsuitable for the purpose, but had been selected to save travelling costs to the tenants, and in many cases the building erected was of less value than the land it stood upon.

His own experience, however, was that underlying most Acts, if looked at from many points of view, existed the spirit of compromise, with perhaps a bias in favour of the property owner. This brought him to a contentious statement that he intended making, without, however, being at all interested in the political issue, viz., that if all the land were nationalised, town planning would be a comparatively easy task. Being familiar with the many difficulties to be faced if such a step were contemplated, he would make the reservation that nationalisation might be confined to land only.

The small property owner had an interest and contentment that no tenant ever had or would have, and such possessive interest would be encouraged by allowing the retention in private hands of anything standing upon the land, but the soil used for the purpose only for which it was intended by the ground landlord (the State) or changed only with such landlord's consent. Thus, any betterment or compensation accruing by change of user remained with those responsible for such change.

Other national problems that must be borne in mind in planning a city were the by-passing of such cities by the main trunk road system and the economic siting of industrial development in the country as a whole; the latter, in his opinion, was rapidly becoming urgent.

From the town planner's point of view, however, the lessons they must learn from these problems were to ignore the boundaries of their own local authorities when national interests were involved, and use the best efforts to combat the parochial outlook so much in evidence with some local authorities.

For their guidance when giving preliminary consideration to the scheme to be prepared, other considerations must be borne in mind, such as the falling birth rate, which if it still continued would have the effect of considerably reducing the population. It was more than likely, however, that cities would still increase in area as the density of houses must inevitably be considerably reduced. He looked upon the present slum clearance programme as merely a first instalment of such density reduction, and believed that many now living would see towns covering probably four times their present area with a less population than now existing. This reduction in density would probably reduce central area values and to that extent facilitate their replanning.

Natural perspectives had provided amenity in the planning of undeveloped areas, but now in city planning one had to depend a good deal more upon the artificial. More thought and care must now be given to the vertical dimension of planning. Open spaces in built-up areas were obviously not easy to obtain, although no scheme would be satisfactory without their generous provision. In his opinion, quite apart from the control of elevations, civic funds could be properly and usefully spent where necessary to improve such elevations to everyone's benefit.

Unfortunately, few, if any, of the Local Government bodies of this country welcomed what was described as unremunerative expenditure, so that we might still have to plod along patiently before we saw results achieved such as were now being accomplished in Rome.

The planning of a city with historical associations and features, and which had considerably expanded through the ages, presented many more difficulties than the more youthful development of, say, Birmingham. The ideal to be aimed at was to provide all the amenities required by present and future generations whilst blending in the scheme those treasures that had been left to us by our forebears.

After giving a brief outline of the history of Nottingham, the speaker said that the planning of Nottingham automatically resolved itself into three distinct schemes, not including the regional advisory scheme which was the first to be prepared in broad outline. Scheme No. 1 included the undeveloped area of the city prior to a large extension of the boundaries, the resolution for which was passed in 1924. The scheme became operative on July 28, 1936. Scheme No. 2 covered the areas taken over from the adjoining local authorities at the date of the extension of the boundaries in 1933, and had reached the draft stage. Scheme No. 3 covered the whole of the remainder of built-up areas of the city, the resolution for which was passed by the City Council in May, 1936. He then went on to give details of these three schemes.

The speaker continued by referring to the difficulties one encountered in dealing with built-up areas as compared with the suburban. The difficulty of expense was familiar to all and, when persuasive efforts failed, might seem to indicate lack of interest on the part of those who tied the purse strings. In his opinion it was principally due to ignorance of the town planner's aims. The latter as a rule had the opportunity of placing the whole of his scheme before a committee in a matter of an hour or so, and if he extended the time usually he bored his audience; but was it reasonable to expect a committee to grasp in so short a time what the planner and his staff had taken so many hours collectively to accumulate? He therefore followed the practice of taking the scheme to his committee piecemeal, viz.: (1) Street improvements and new streets indicating the main traffic routes; (2) open spaces, parking facilities, etc.; (3) zoning. In this way he found increased interest taken, and more helpful criticism than the one they were all familiar with—"What is it going to cost?"

Another hurdle to be faced appeared in the question, "When will some of these proposals, which may be good, be carried out?"—to which no definite answer could be given. The period allocated in the 1932 Act for the submission of a scheme was totally inadequate for the built-up areas. Much time might be saved by submitting a main plan in broad outline, subsequently splitting the area into sections and submitting separate supplementary orders to cover them. By this means one would be less apt to miss the perspective of the scheme as a whole.

The reply might be that extensions were usually, if reluctantly, granted, but this did not assist the planner who was dealing with local bodies, who were too ready on occasion to allocate blame for delay. The planning of industrial areas would be simplified if some guidance were given by means of a national scheme for the distribution of industry, something on the lines of that now in operation in connection with the re-armament programme. The time was long overdue when it should be compulsory for main drainage (foul), refuse disposal and many other services to be dealt with regionally. Economies that could be effected in this direction would be considerable, quite apart from the abolition of many existing nuisances. He had endeavoured to indicate that without some added assistance from the Government, planners had to administrate an Act which was largely empirical and dependent to a great extent upon persuasion.

The word "administrate" reminded him of one final point, viz., that the administration of town planning was clearly allied to that of by-laws, and, contrary to the practice in many towns, it should be the duty of one official and one committee, if the public were to obtain the expeditious service to which they were entitled.

Discussion.

PROFESSOR S. D. ADSHEAD, proposing a vote of thanks to the author, said that thinking over the administration of town planning in this country, it appeared to him to have gone through three phases. In the early period as young town planners they attacked the subject with tremendous exuberance and exhilaration, for they thought it was going to solve all their problems. For this belief they had some justification, both in the light of the situation at the time and also in the realisation of what had happened when they looked around to-day. It seemed to him, however, that while expectancy was kept up for some years after the War, then a period of depression set in for about 10 years amongst the enthusiasts, who began to feel that all was being lost in regulations. By-laws seemed to be completely mixed up with town planning, and in some cases supplanting it, and then old ideals appeared to be lost. Now he had got again to an optimistic period, and began to realise that out of the entanglement they were beginning to see light, and that was due to the process of preparing schemes which, he thought, had come direct from the officials of the Ministry of Health. It was a system of elimination; there seemed to have come upon them a clear distinction between what was purely statutory and what was ideal. Schemes were being prepared which were more and more leaving the future to those who would be living at the time. It was encouraging also to find that town planning was beginning to interest those responsible for the transport of the country.

MAJOR ROSEVEARE, seconding the motion, said he thought they had to be rather careful in regard to shopping centres, as that had been rather overdone in some cases. The author suggested that the centre of the city should be the civic centre, with hotels, and so on, around, and then there should be shopping centres, and then warehouses and markets, but they were all concerned in the question of where the factories should go and where the satellite town should commence, or whether they should restrict the area of their particular town by a green belt and allow normal development in the residential areas just outside.

MR. HARDING THOMPSON questioned the author as to the policy of the Nottingham Corporation regarding the acquisition of decayed property and the stopping up of streets.

MR. H. ROBINSON said it depended on the region as to whether the provision of main drainage and so on should be dealt with regionally. Where villages were situated a long distance away, it meant laying long lines of pipes.

MR. G. L. PEPLER said they should plan big enough, because it was almost certain that such planning would be helpful when new conditions arose.

MR. FINCH, in reply, said that in regard to slum areas in Nottingham, they bought where they could and kept control in their own hands. He did not refer to the area beyond the wholesale markets and so on, as that might be a clearance area, and there would be the opportunity to consider what should be done with the property. He was not enamoured of green belts and would prefer open spaces scattered about the populated areas. They had powers in Nottingham to close streets at short notice. He did not suggest the provision of car parks in the centre of a city—they should be provided on sites a few minutes' walk from the centre. He had controlled tipping of refuse, and they were filling up and levelling land which had been acquired very cheaply, and this land, he thought, would be well suited for recreative purposes.

THE RENT RESTRICTION BILL

By JAMES P. ORR.

THE Government policy on Rent Restriction was announced in Cmd. 5667, which dealt with the Rent Restriction Committee's recent report and undertook immediate legislation on certain points. The Rent Restriction Bill presented to Parliament on February 21, 1938, fulfils this undertaking.

The Rent Restriction Acts control the relations between landlords, tenants and sub-tenants in different ways according to the classes to which their respective "dwelling-houses" belonged in the valuation lists of 1932.

According to the nomenclature adopted by the Committee, in London Class A houses are those of rateable value over £45; Class B houses are all others of rateable value over £20; Class C houses are all those of rateable value £20 or less.

The 1923 Act established a system of gradual decontrol, under which control ceased so soon as the landlord came into possession of any house, of whatever class.

The 1933 Act dealt only with houses that had not become decontrolled under this system by July 18, 1933. It decontrolled Class A *en masse* as from that date, and confined the gradual decontrol system to Class B, so that however many changes of tenants there might be in dwellings of Class C, those dwellings were kept under control for the duration of the Rent Restriction Acts, *i.e.*, until June 24, 1938.

The 1938 Bill deals only with houses still under control when it becomes law. Broadly, it decontrols *en masse*, as from September 29, 1938, such of the houses of Class B as were rated in 1931 at over £35, and puts the lower-rated houses of that Class on the same footing as Class C, so that all controlled houses rated in 1931 at £35 or less are to remain controlled for an indefinite period, whether the landlord gets possession or not. The Minister of Health is appointing a committee to make recommendations as to when and how they should be decontrolled.

The Bill thus proposes to abolish the 1923 gradual decontrol system, which now applies to Class B; but it makes an exception to this general rule in the case of certain Class B tenemented houses rated at over £35 in which any apartment is "vacant and to let" or "occupied and sub-let." Such a house is to be decontrolled (like the others in the upper range of Class B) only if, after deducting from the rateable value of the whole house the rateable value of such apartments, the remainder is over £35. If the remainder is £35 or less, then, under clause 2 (2), the house is to be reckoned as belonging to the lower range of Class B; but, under the latter part of clause 3 (2), it (unlike the other houses in that range) is to become decontrolled when the landlord gets actual possession.

The main changes proposed by the Bill are thus:—

i. To relieve from control landlords of most of the dwellings rated at over £35, and make their tenants liable to enhanced rents and to dispossession at short notice;

ii. To deprive most other landlords of the right they now have to raise the rents of dwellings rated between £20 and £35 on getting possession.

The first of these changes is held in Cmd. 5667 to be justified by evidence that "any shortage of Class B houses does not now extend to the upper ranges of Class B."

In London the houses affected by this change are, for the most part, tenemented houses sub-divided into separately let apartments. It would be disastrous to the London housing campaign if these apartments became decontrolled along with the houses within which they lie; for they are mostly occupied by working-class tenants and sub-tenants. But fortunately, when a house is decontrolled as a whole each separately let part then controlled remains controlled; so, as the London apartments in question are mostly rated at £35 or less, and will therefore, like the present C class, be exempt from decontrol, no great hardship to tenants will result from the concession which this change grants to landlords. The possibility of such hardship is reduced by the exceptional provision noted above, under which landlords of some of the tenemented houses in the upper range of Class B have to wait for decontrol until they get possession.

What justification there is for the second change is not stated either in the Committee's report or in Cmd. 5667; but the Minister of Health, in introducing the Bill in the House of Commons, explained that "many families occupying C class houses were of the same status as those in the lower B class," and this change would increase (he meant "stop the gradual depletion of") "the pool of controlled houses available to this section of the community and would encourage the abatement of overcrowding and increase the general mobility of the tenants."

This is a good object, and is of special importance in London, where the crux of the housing problem lies in the masses of tenemented houses, each designed for a single family, but now occupied by several, commonly one on each floor. It is here that the worst and most widespread overcrowding is found; and the main obstacle to the abatement of overcrowding is the immobility of the tenants.

If the better-to-do families could be persuaded to move, their rooms would be available for enlargement of overcrowded tenements in the same house; but, protected from dispossession by the Rent Restriction Acts, they are unwilling to move to decontrolled or other uncontrolled houses in which they will have no such protection. Those with several earners can usually well afford a moderate increase of their controlled rents; and if the move to a more commodious dwelling involved merely a somewhat higher rent, they might face it; but it involves also the sacrifice of that freedom from dispossession at a week's notice which they have enjoyed for so long; and this is the stumbling-block.

Under Section 3 of the Rent Restriction Act of 1933 they can be compelled to move, if "suitable alternative accommodation" is available; but the definition of "suitable alternative accommodation" makes it very difficult to rebut a plea that the proposed accommodation is not suitable. This difficulty is considerably reduced, if the proposed accommodation is in a controlled dwelling; so this second proposed change in the rent-restriction law must from an administrative point of view be welcomed in London.

From the point of view of the controlled landlord, however, we are bound to admit that this proposed change involves considerable hardship, especially to those landlords whose rents were unduly low when control commenced 23 years ago, so that their profits, always low, are now being constantly reduced by the rising cost of repairs.

This hardship was under the Rent Restriction Act of 1923 to have ended with the duration of the principal Acts on June 24, 1925; but then that duration was prolonged for 2½ years and thereafter year by year to 1933. The Act of that year, while abolishing decontrol for Class C houses, laid down that the principal Acts should continue in force until June 24, 1938, "and no longer"; and now it is proposed to abolish decontrol for most of Class B houses and give the disappointed landlords no compensation for the prolongation and intensification of restrictions which from the first have been regarded as abnormal and purely temporary.

It would surely be only just and fair to let landlords of controlled dwellings enhance their rents by, say, ½d. in every shilling of the nett rent, *i.e.*, rent exclusive of rates, now charged, and to help tenants who might in time find this rent too high by providing them with municipal dwellings at reasonable rents assessed under the personal rent rebate system to suit their means and needs*.

The general level of rents within the controlled pool would then rise gradually by moderate increments from year to year, while outside that pool the general level would gradually fall as the number of houses increased. This increase should be expedited by an energetic programme of municipal buildings designed to provide suitable alternative accommodation for not only slum-dwellers and overcrowded families, but also such of the families occupying controlled dwellings as can afford considerably more than their controlled rents, but not such high rents as private landlords charge outside the controlled pool.

There should at the same time be an annual combing out of municipal tenants, especially those with two or more earners in the family, who can be transferred to higher-rented dwellings to make way for poorer tenants from the controlled areas.

These measures should result in the gradual reduction of the difference in level between rents within the controlled pool and those outside; and ultimately there would be created both within the pool and outside a gradually growing margin of empties, the existence of which in something like pre-war dimensions would make the Rent Restriction Acts inoperative, and legislation as to when and how control should be ended unnecessary.

* See the writer's article in *The Builder* of December 16, 1932, p. 1026.

SOCIETIES AND INSTITUTIONS

THE MANCHESTER SOCIETY OF ARCHITECTS.

THE annual dinner of the Manchester Society of Architects was held at the Masonic Temple, Manchester, Mr. W. A. Johnson, F.R.I.B.A., presiding.

The PRESIDENT read a telegram from the President of the Royal Institute of British Architects (Mr. H. S. Goodhart-Rendel), who was to have been the chief guest, but who was prevented by indisposition from attending.

Proposing the toast of "The Royal Institute of British Architects," the President said it was appropriate, he thought, on an occasion so representative of the varied life of their city, that they should ignore all merely domestic questions in favour of those larger issues which more directly affected the welfare of their fellow-citizens.

"I make no apology, then," he continued, "for placing in the forefront the Bill for the Registration of Architects. This is not a domestic question. Architects will benefit little by its being placed on the Statute Book, and the present generation not at all. Its object is to safeguard the public from entrusting the control of building work to those who may prove unfitted for the responsibility, by establishing a definite standard of qualifications, thus ensuring that every person entitled to use the designation 'architect' shall have acquired that minimum of scholarship and technical skill as to afford a reasonable expectation of safe, convenient and appropriate building. It does not seek to coerce the public into employing architects, but merely to ensure they are not deceived. No doubt, for an activity which is both a science and an art, any educational curriculum will largely concern itself with technical matters, but it will at least enable us to confirm an established standard of literacy in architecture, and by precept, study of first principles, and of precedent to eradicate that taint of vulgarity which is the lowest common denominator of most building activities of to-day.

"In more immediately direct ways, however, the Royal Institute is seeking to build up an informed public opinion on the material environment which forms the setting of our everyday lives. To use a popular, but ugly phrase, we seek to make the public 'architecture conscious.' . . .

"The industrialised character of our civilisation, its increasing mechanisation, and the consequent growth of large aggregations of population has necessarily brought about a state of things whereby most building is of a communal character, concerned with the fulfilment of public needs. Architecture has therefore ceased to be an affair either of simple, vernacular building, or a matter for connoisseurs, and has become a vital public interest. Unless, then, an informed public opinion can be created which refuses to accept squalor and disorder as a necessary concomitant of their lives, which believes that planlessness and confusion are evidence of incompetence, and that elegance and graciousness of environment are equally possible in an industrial community as in any other, then we shall deserve a civilisation whose conception of wealth is lower than that of a squirrel collecting nuts, and whose notions of social relationships are based on the mechanical activities of insects with no knowledge of the past and no hope for the future."

SIR IAN MACALISTER, Secretary of the R.I.B.A., replying on behalf of Mr. Goodhart-Rendel, said they were hard at work trying to make certain that the Bill promoted by the Architects' Registration Council should become law. They had done very well so far, but they must not fail, as they easily might do, by slacking off at the last. He could not think that members of the general public realised that anybody whatever might now take fees from them for performing services of which he might not even know the nature; that any man, woman or child ordering headed notepaper or visiting cards might have the word "architect" added to them just to take off the plainness. Members of the public assumed that a man having the word architect after his name in the telephone book could and probably would dispense their money reasonably and see that they were safely housed. Experience, no doubt, might teach them better, but there was nothing as yet to prevent that experience taking the form of financial ruin or even death. Plainly the protection the public already had from quack lawyers and quack doctors it should have also from quack architects.

You could not prove a man's trustworthiness by examinations any more than you could measure his artistic calibre by examinations, but you could by examination detect the imposter and the man whose ignorance of design was invincible. Finer testing must be done in schools, whose duty it was to suggest to the unlikely students—to those who could perhaps pass an examination but who could hardly ever be good architects—that they should choose some more suitable profession. They had in Manchester a school with a great and well-deserved reputation that was constantly engaged, as all others were, in sucking in human beings, regardless of age and sex, and throwing them out later as trained architects, architects that needed nothing but a little commercial experience before they could set up on their own. The world wanted only quite a few fresh architects annually, so what was to become of the rest? As things were they mostly became draughtsmen or clerks in public or private offices, the high ambitions of their student days dwindling as years went by into a faint hope of promotion or of some small partnership.

In every architectural school one must be constantly on the watch for students who were missing their vocation, and must gently but firmly push them away from architecture towards wherever they properly belonged. Yet, although the supply of qualified architects might be excessive, the demand for them was still much less than it should be. They were all hoping that Government might make the engagement of an architect an indispensable qualification for obtaining the new housing subsidies, and thus prevent a large proportion of those subsidies from being ignorantly wasted.

When a man was spending his own private money they might hope he would employ an architect—or if small buildings should become largely standardised like motor cars they might hope that he would choose an architect-designed stock pattern. Far better, however, than any attempt to dictate to him, any attempt to compel him to enlist their services, would be to educate him so that he might know his need of an expert and might choose one wisely. The speaker concluded by saying: "I suppose that remarks like these I have been making to-night can always be represented by anybody who dislikes us as a disguised trade advertisement: *Use more architects.* I am certainly prepared without any disguise to urge that we should use more architecture, and, since architecture is normally produced by architects, I suppose it comes to very much the same thing. Yet the difference in stress is important. The Institute and its allied societies is not a combination of architects formed for professional advantage. It is not only natural but proper that our societies should look after the interests of their members in all matters that could not possibly conflict with the interests of the public at large, but there is not, and never must be, anything that could possibly be called an architectural ring."

THE LORD MAYOR OF MANCHESTER (Alderman J. C. Grime, O.B.E., J.P.) said he wanted to thank the Society for all it was doing, and its members for the efforts they had made individually to improve its buildings.

The toast of "The Friends of Architecture" was proposed by MR. J. R. ADAMSON, Vice-President of the Institute, who said that architecture was definitely "looking up." From having for so long been the Cinderella of the arts, it had now become a subject for polite—sometimes, perhaps, impolite—conversation and discussion amongst men and women of every sort.

PROFESSOR F. E. TYLECOTE, M.D., etc., responding, said he would like to thank members of the Manchester Society for the valuable services many of them gave to the city in an honorary advisory capacity on the Art Galleries Committee, the Board of the Whitworth Institute and on the Civic Advisory Committee. Those services were known to too few citizens.

MR. C. GUSTAVE AGATE, F.R.I.B.A., Vice-President of the Manchester Society of Architects, proposed the toast of "The Guests," and MR. JOHN COATMAN, C.I.E., M.A., replied.

S. WALES INSTITUTE OF ARCHITECTS.

Welsh Board of Health Building.

A visit was paid to the new building for the Welsh Board of Health, Cathays-park, on Wednesday, March 2, by the Cardiff Civic Society, the Central Branch of the South Wales Institute of Architects, and the Welsh School of Architecture, Cardiff Technical College.

The party was first shown round the exterior, noting the general design in the form of a long rectangle with subsidiary masses at each end. The building is of four main storeys with an entrance in the centre of each façade, the lower three storeys being treated with an order of broad pilasters, the top storey forming an attic above the main cornice.

The party then entered the building, and was taken round the various rooms. A large collection of working drawings, models and specimens of materials used in the structure were exhibited in one of the offices.

This building, opened on St. David's Day, 1938, is the first Government building of its kind to be erected in Wales. In the absence of the architect, Mr. P. K. Hanton, O.B.E., F.R.I.B.A., of H.M. Office of Works, the party was conducted by Mr. W. T. Fraser, L.R.I.B.A.

At the termination of the inspection, thanks to the Welsh Board of Health, H.M. Office of Works, and Mr. Fraser were expressed by CAPTAIN D. BRYNMORE ANTHONY on behalf of the Cardiff Civic Society; MR. GORDON H. GRIFFITHS, on behalf of the Central Branch of the South Wales Institute of Architects; and MR. W. S. PURCHON, on behalf of the Welsh School of Architecture.

A Film on Glass.

In connection with the visit to Cardiff of the "Glass Age Train," a film entitled "Vitrolite" was shown to the Welsh School of Architecture, Cardiff Technical College, and the South Wales Institute of Architects, Central (Cardiff) Branch, at the Welsh School of Architecture, Cardiff Technical College, on March 14. The film showed the methods of manufacture and of the fixing and using of glass bricks and vitrolite. Mr. J. Holt, who has travelled with the "Glass Age Train" in its journey through Britain, explained certain points and answered the various questions raised by the audience.

A vote of thanks to Messrs. Pilkington Bros., Ltd., and to Mr. J. Holt was carried, on the proposal of Mr. Gordon H. Griffiths, L.R.I.B.A, A.M.T.P.I., seconded by Mr. S. Knight Thomas, A.R.I.B.A., supported by Mr. W. S. Vernon, M.Sc., F.Inst.P., Head of the Department of Physics and Applied Physics at the Technical College, Cardiff. The chair was taken by Mr. W. S. Purchon, M.A., F.R.I.B.A., Head of the School.

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS.

Airports of the Future.

A model 9 ft. by 7½ ft. of an "airport of the future" was on view on Wednesday, March 16, when a lecture on "Airports of

the Future," by Mr. Nigel Norman, B.A., F.R.Ae.S., was read before the Incorporated Association of Architects and Surveyors, 43, Grosvenor-place, London, S.W.1. The paper was read by Mr. R. F. Lloyd-Jones.

He said that the airports of the future would need hangars, moorings and slipways, aerodromes and water-alighting areas suitably furnished with all the equipment necessary for the control during arrival and departure of a heavy volume of traffic proceeding, regardless of weather conditions, by night and day. There was justification for the view that no form of transport terminus presented quite such an intricate combination of light and heavy engineering and of architectural works as would the great airports of the future. The proper co-ordination of all the features of such a port would demand the concentrated attention of specialists, and the task was made especially difficult by the extraordinary rapidity and variety of technical development which was taking place.

The speaker, referring to the model, described how the loading station provided for all loading and unloading of land aircraft to be carried out under cover, a desirable feature where tropic rains and extreme sun temperatures were experienced. For the accommodation of aircraft, cantilever structures of wide span were of particular interest, since they allowed complete freedom of movement. Provision would have to be made in the immediate future for aircraft with a wing span of 300 ft.

Also, there was bound to be need for a luxurious bathing beach with many cabins, a luxury hotel, and perhaps even a casino. The scope for various professions in the construction of such a combined port was considerable. For the operation of flying boats water, to some extent sheltered, was required, which meant many moles or breakwaters protecting an area, running to more than a mile in all directions, from the worst of the weather.

The lecture was illustrated by many lantern slides.

INSTITUTION OF STRUCTURAL ENGINEERS.

Elections.

The following have been elected to membership of the Institution of Structural Engineers: As Students: J. T. Butler (Birmingham), I. S. Neil (Tauranga, New Zealand), C. J. Woodrow (Torr, Plymouth). As Associate Members.—H. J. Dowling (Seedley, Salford), W. C. Dunton (Hirst Hill, Staffs). As Members.—J. Addison (Sale), G. A. Brierly (London), C. O. L. Gibbons, M.Sc., A.M.Inst.C.E. (Wardsley, Stourbridge), H. Hart (Dartford), J. A. Machin (Abergavenny, Mon), H. J. Prior, B.Sc., A.M.Inst.C.E. (Uddington, Lanarkshire).

THE INSTITUTION OF CIVIL ENGINEERS.

Institution Awards.

James Alfred Ewing Medal.—The Council have made the first award of the James Alfred Ewing Medal to Mr. Charles Samuel Franklin. This medal was founded in 1936 in memory of Sir Alfred Ewing, Hon.M.Inst.C.E., and is awarded to a person, whether a member of the Institution or not, for specially meritorious contributions to the science of engineering in the field of research.

Bayliss Prize.—On the results of the October, 1937, Associate Membership Examination (Sections A and B) at home and abroad, the Council have awarded the Bayliss Prize to Mr. Ronald Kerridge, of Darlington.

Portsmouth, Southampton and District Association.—The Council have approved the formation of an Association of Corporate Members and Students with centres at Portsmouth and Southampton, and, at the inaugural meeting held at Portsmouth on Thursday, January 13, 1938, Mr. M. G. J. McHaffie, M.Inst.C.E., was elected Chairman of the Association, and Mr. P. E. Sleight, M.Eng., Assoc.M.Inst.C.E., Honorary Secretary.

"SUNLIGHT IN THE ENGLISH LANDSCAPE"

An address on this subject was given by Mr. G. A. Jellicoe, F.R.I.B.A., at a conference of the British Health Resorts Association, held at Hastings, on Saturday, March 19.

He said that in one of the forewords to the Handbook on British Health Resorts attention was drawn to "a climatic advantage of this country, not generally realised, that is due to the effect of Britain's changeful skies in varying and subduing the sunlight, and in giving character to the landscape." It was this question of sunlight in relation to landscape which seemed to him of exceptional importance, and one which, as the writer said, was often overlooked. His (the speaker's) purpose was to try to analyse the effect of sunlight on our architecture and landscape in the past, and discuss this effect at the present day.

"More than most countries," proceeded the lecturer, "we are influenced by architecture and forms of living from abroad. In their time Greece, Italy, France, Sweden, and even China, have left their mark. To-day we know of advanced and able architects who are being inspired by modern architecture in Central Europe. It has, however, always been the quality of our greatest historical architects that they have recognised the differences which lie between ourselves and other countries; they have absorbed architectural forms and have readjusted them to suit home conditions. Perhaps there has been no greater influence upon our national architecture than that of the climatic conditions of the sky.

"Let me turn to history. First, as to modelling. We all know and appreciate the beauty of Elizabethan architecture, especially that of the manor house set in the traditional English garden. This has a beauty of its own that is far removed from the equally beautiful but more classic villas of Italy. I maintain that it is as much as anything the effect of climate on the design that has produced this degree of beauty. The crisp light of the classic countries on the Mediterranean allows for delicate mouldings and a plain silhouette. This country calls for a broken skyline and more robust detail. Our finest English architect, Inigo Jones, in interpreting classic architecture, realised that this was the secret of success of both mediæval and Elizabethan architecture.

"Secondly, there is the beauty of materials. The English red brick or stone, or the varied tone of plaster, appear under the influence of sunlight with a depth and richness of tone that is not found abroad. Any photographer will tell you of the low light value in this country, as contrasted with that of the Mediterranean.

"Thirdly, it was the Elizabethan who developed the flower garden in this country. It is a fact that the traditional gardens of Italy have very little colour. The eye calls for tones which are restful, and the Italian garden may be described as a symphony of grey stone, evergreens and water. In this country our passion for flowers is due as much as anything to the greyness of our climate. Their bright colour is required for lighting up a garden, where such colour is suppressed in southern countries.

"The period of the eighteenth century introduces a new theme, which to my mind is equally vital in the consideration of our buildings to-day. This is the exhilaration of sun shadows travelling across an undulating landscape. There is no doubt that the English park, which was developed at this period, provided a grand setting for the panorama of the sky, and the English lake helped all the more to draw the light of the sky into the ground. Even the shapes of English trees seemed to follow the theme of the travelling shadows.

"The beginning of the next century produced another and almost equally beautiful landscape in the development of the seaside towns as places of pleasure resort. Just as the broad downs on the South Coast epitomise the landscape of the eighteenth century, so the fronts of Brighton and Hastings give the clue to the character of the Regency. Here there are long lines of terraces, which by the breadth of their design are related to the wide sea which they oppose. But just as the sea is broken, so are these lines of terraces broken with curveting bays and balconies that intersect the sunlight playing on the surface, and make the architecture come vividly to life. It always seems to me, also, that these fronts, with their varying yellow plaster, echo the tones and colour of the beach which they adjoin.

"In this scientific age we are tackling the problem of sunlight from a different point of view from previously. Whereas to-day we draw the sunlight into our rooms scientifically by our wide glass windows with 'Vita' glass, a hundred years ago it was drawn in by a sense of the beauty of pattern made by sunlight playing through the windows. This change of outlook is proper, but may I give a warning that the scientific side may be overstressed to the deterioration of the æsthetic? Thus the modern architect stresses the contrast of his broad windows with his plain white surfaces. I think we should view this simple and distinguished point of view in architectural design with caution, for it is more the tradition of the southern countries than our own. We need more than anything to bring once again the quality of sunlight into the actual structure of our architecture.

"We must be careful of white surfaces that at certain times of the year give too great a glare; the white surface on a small area is harmless, but on a large area is dangerous to the eyesight. Perhaps I can give no better example of the perfect proportion of vivid white and deep green that is satisfactory in landscape than by referring to the ordinary village green on which cricket is played and can be watched there, without the eye being tired, for hour after hour.

"We must examine the part played by flowers in supplying the brightness and colour for those times when sunlight is absent, but we must also remember the part played by grass and foliage in giving restful contrast to architecture. Here, may I say how distinguished are the parks and gardens of Hastings in supplying this need? And, indeed, Hastings, with its romantic castle, its gracious terraces and squares, its association with the downs, and its vigour in modern development, is an ideal town in which to study the age-old problem of sunlight."

Lighting Provisions of the New Factory Act.

A round-table public discussion on the lighting provisions embodied in the New Factory Act will be held under the auspices of the Industrial Lighting Section of the Illuminating Engineering Society, at the Home Office Industrial Museum, Horseferry-road, Westminster, London, S.W.1, on Tuesday, March 29, at 6.30 p.m., when speakers representing the points of view of the employer, the employee, the lighting expert and the administration will take part. Tickets (free) may be obtained from the Secretary of the Industrial Lighting Section of the Illuminating Engineering Society (Mr. C. W. M. Phillips, the British Thomson Houston Co., Ltd., Crown House, Aldwych, W.C.2).

High Alumina Cement.

A report for the guidance of structural engineers when using high alumina cement has been issued by the Institution of Structural Engineers, 10, Upper Belgrave-street, S.W.1. Copies may be obtained from the Institution, price 6d. A foreword states that the report has been prepared to assist structural engineers "to acquire the technique of using high alumina cement, to give an indication of its advantages and disadvantages relative to Portland cement, and, pending the publication of a British Standard Specification for high alumina cement, to help engineers to determine whether or no a given sample of cement is true to type and in good usable condition."

LAW REPORTS

KING'S BENCH DIVISION.
Before MR. JUSTICE MACNAGHTEN.

QUESTION OF IMPLIED WARRANTY ON SALE OF COMPLETED HOUSE.

Hoskins v. Woodham.

In this case the plaintiff, Mr. H. J. Hoskins, of 23, Brookside-gardens, Waltham Cross, Herts, claimed to recover from the defendant, Mr. C. G. Woodham, of "Paragon," Cuffley Hill-road, Cuffley, Herts, damages for alleged breach of contract, breach of warranty and negligence.

The plaintiff alleged that in March, 1936, the defendant, who was the owner of a building estate known as Brookside Gardens, Turkey-street, Enfield, Middlesex, and which was being developed by defendant, who was building residential houses thereon, sold to plaintiff for £695 one of the houses which was then in course of erection and known as 23, Brookside-gardens. The plaintiff alleged that it was an implied term of the contract entered into by him with the defendant for the purchase of the house that it should be reasonably fit to be used as a dwelling-house and that the materials used should be suitable, fit and proper for the purpose for which they had been used, and that the work of building the house would be carried out in an efficient and workmanlike manner.

The plaintiff having completed the purchase of the house about March 25, 1936, and having gone into occupation of it, alleged that he found that the ground floor was laid without any means of ventilation, the joists being embedded in and flush with the concrete, and that a layer of material had been inserted under the deal floor boards, which had been nailed directly thereto and by reason of which the whole of the ground floor had become wet, mildewy and rotten, and so bad that it was impossible to lay linoleum or any other form of floor covering thereon.

The plaintiff said that in the circumstances it would be necessary for him to remove the whole of the ground-floor boards and joists, fill in all cavities, cover the concrete with waterproof cement, and then lay a wood-block floor in bitumen upon a properly prepared cement bed, the cost of which would be about £60. In addition to this the plaintiff claimed damages for having to reside elsewhere during the necessary work.

The defence was a denial that the terms alleged by the plaintiff were implied in the contract. The defendant also denied that the house was not reasonably fit to be used as a dwelling-house, or that the materials used were not suitable or fit for the purpose for which they were used, or that the work had not been carried out in an efficient and workmanlike manner.

Mr. Gilbert J. Paull appeared for the plaintiff; and Mr. H. G. Garland for the defendant.

Mr. Paull, in opening the case, said that the plaintiff bought his house in March, 1936, for £695. In the following autumn dampness appeared on the ground floors, which as winter came on became worse. A wet film was cast over the furniture. When an examination was made it was found that there was no air-space between the floor boards and the concrete "float," on which the house was built. It appeared that the beams had been let into the concrete until they were flush with the surface, sheets of supposedly waterproof felt laid on the concrete and the floor boards nailed to the beams. It was alleged that because of the way the floors were constructed they became very damp and would have to be relaid. It was also alleged that the concrete was not so thick as it should have been.

Evidence having been called in support of the plaintiff's case, Mr. Charles N. Varney, building inspector for the Enfield Council, gave evidence for the defendant to the effect that the construction of the floors complied with the by-laws. He saw nothing that called for his interference.

Mr. W. W. Chappell, of Farr-road, Enfield, a builder's manager, gave evidence that he supervised the building of the house in question, which he said conformed with the by-laws in every way.

Mr. C. V. Cable, an architect and surveyor, of Cuffley, gave evidence that in his view any damp there was on the floors had not come from below.

At the conclusion of the evidence and the addresses of counsel, his lordship said he had no hesitation in saying that the damp came from below the floor boards, and he thought that the plaintiff was right in his contention that the floors did not comply strictly with the letter of the by-law, although it might comply with the by-law as interpreted by the Ministry of Health and the local authority.

After explaining that the house was built for the defendant by a building company, his lordship said he did not think it was necessary for him to decide how the damp got through the floors. It might have been because the concrete was not thick enough, or because the felt was not impervious, or it might have been through a combination of circumstances. The plaintiff did not succeed in this action because it had been legally decided that in the sale of a completed house, duly executed, there was no implied warranty that the house would be fit for habitation.

It had been argued on the plaintiff's behalf that with the advent of building estates the law should be otherwise construed. The sale of houses, however, was not a new practice, and there was no legal authority which entitled the plaintiff to successfully claim implied warranty in the sale of a completed house. There must, in the circumstances, be judgment for the defendant with costs.

KING'S BENCH DIVISION.
Before MR. JUSTICE DU PARCQ.

UNSUCCESSFUL APPEAL FROM COMPULSORY PURCHASE ORDER UNDER HOUSING ACTS.

Payne and Others v. Minister of Health.

In this case, Messrs. R. Payne, W. Gray and P. G. Barber, the trustees of the late Dr. Henry Payne, of Newhill Hall, Yorkshire, appealed from a compulsory purchase order made by the Minister of Health under the Housing Acts, 1925-36, upon the application of the Wath-upon-Dearne Urban District Council regarding certain land at Newhill Hall for the purpose of rehousing the working classes.

Mr. Arthur Capewell appeared for the appellants; and Mr. Valentine Holmes for the Minister of Health.

Mr. Capewell said his application was that the order should be quashed, or, alternatively, such part of it as related to the compulsory purchase of part of the park lands of Newhill Hall, his contention being that the order was *ultra vires* on the ground that the land to be acquired formed part of the park and grounds of the house, and was therefore necessary for its amenities. He said his complaint was that at the public inquiry which was held nobody on behalf of the local authority said anything with reference to any part of the park or pleasure grounds, or as to the convenience of this land to the occupants of Newhill Hall. In his view, the value of the house would deteriorate if the land could be taken and used for the purpose for which it was contemplated.

Mr. Valentine Holmes submitted that the decision of the Minister of Health should stand and the appeal dismissed. It was, he (counsel) contended, a pure question of fact for the due consideration by the Minister of all the evidence laid before him following the public inquiry.

In giving judgment, his lordship said he was not satisfied on the evidence before him that the land in question did form part of a park or pleasure ground, or that it was necessary for the amenities or convenience of Newhill Hall. In his opinion, no ground had been shown on which he could interfere with the decision of the Minister of Health.

The appeal failed and would be dismissed with costs. Order accordingly.

NEWS FROM THE SCHOOLS

UNIVERSITY COLLEGE, LONDON.

Increase in Full-time Architectural Students.

"The increase in the number entering for the full-time Architecture Course is an encouraging indication that the anticipation expressed in the Report of 1937, that the return of national prosperity would have such an effect, was more than a pious hope."

Thus states the Report of the Bartlett School of Architecture, contained in the Annual Report (1937-1938) of University College, University of London.

The Report continues: "In view of the marked increase in the number of full-time students this session, the College Committee have authorised the appointment for 1937-38 of an additional part-time instructor to assist with the first-year work. The work has been carried on in collaboration with teachers of the Faculty of Engineering, who have provided for architecture students special instruction in structural engineering, surveying, levelling, and other branches of engineering. The reciprocal arrangement with the Slade School, whereby the students of either school attend any classes of the other that meet their needs, continues to work happily."

The title of University Professor of Architectural Design, as we recorded recently, has been conferred upon Mr. Hector Othon Corfiato, formerly University Reader in Architecture.

Among the benefactions of the year mentioned in the report is the presentation of a bronze bust and a sum of over £413 for the endowment of a prize for drawing in the Slade School by the Henry Tonks Memorial Committee. Also 500 guineas from Mrs. Malcolm for the foundation of a Betty Malcolm Scholarship in the Slade School.

AUCKLAND UNIVERSITY COLLEGE SCHOOL OF ARCHITECTURE.

We have received a copy of the 1938 Prospectus of the School of Architecture, University of New Zealand, Auckland University College, the recognised training centre for architects in New Zealand.

The prospectus states that there are three courses of study available, the second being supplementary to the third. They are the Degree Course, the Diploma Course in Architecture of Auckland University College, and the Professional Course. Special courses in town planning are available by special arrangement with the Director of the School. Particulars concerning the admission of students, scholarships, fees, etc., are also given in the prospectus.

YORK AND E. YORKSHIRE STUDENTS.

The Council of the York and East Yorkshire Architectural Society have awarded the prizes offered for competition to students of architecture within the area as follows:—

Measured drawings (instruments or books to the value of £4 4s.), Mr. W. Garner, of Hull, for his representation of portions of the Minster, Beverley, and St. Mary's, in the same town. A special second prize was awarded to Mr. R. E. Burley, for his drawings of an interesting selection of brick buildings.

The Design Prize (instruments or books to the value of £4 4s.) for a group of kiosks suitable for erection in a railway station, Mr. A. K. Bray.

The Llewellyn Kitchen Prize (£10 10s.) for the best work in either or both of the above competitions, Mr. W. Garner.

Special prizes for measured work of small domestic architectural character suitable for reproduction, Mr. T. A. Baldwin.

Travelling Scholarship, Mr. W. Garner. Mention accorded to Mr. H. M. Tardrew.

All the successful students are members of the Hull College of Art, Mr. A. K. Bray being, in addition, a pupil of Messrs. Harbron and Hick, and Mr. R. E. Burley a pupil of the City Architect of Hull, Mr. D. Harvey.

THE POWERS OF THE QUANTITY SURVEYOR—XI

By W. T. CRESWELL, K.C., Hon.A.R.I.B.A., A.S.I., assisted by NORMAN P. GREIG, B.A., Barrister-at-Law.

ERRORS IN DIMENSIONS AND LEVELS ON PLANS.

Of great importance to the quantity surveyor is the question of liability for errors in the dimensions and levels on the drawings supplied by the architect for the purpose of taking off quantities. Let it be admitted that, at first sight, it would seem as though the quantity surveyor, provided he uses the figures, etc., provided on the drawings supplied to him, could relieve himself of any personal liability for any consequences that may arise from their inaccuracy.

If the 1931 Form of Building Contract *is* used for the building agreement, however, that would not appear to be the case. In the first place, the quantity surveyor is named in the Articles of Agreement. He, "the surveyor," is paid in accordance with the terms of the contract, *and is responsible for the bills of quantities.* This being so, there is a duty cast upon him to visit the site of the contract works, to check the dimensions which are given on the drawings as well as any levels which may be given on the site plan—the levels, in fact, of the site itself. Support is given for this contention when one looks at clause 11 of the 1931 Form of Building Contract, which states that bills of quantities, unless otherwise stated, are deemed to have been prepared in accordance with the Standard Method of Measurement of Building Works last before issued by the Chartered Surveyors' Institution. This Standard Method requires that the matters mentioned above shall be taken into account by the quantity surveyor, particularly those in respect to the nature of the soil, *e.g.*, the presence of rock, and the necessity for excavation to be measured in stages of depths, etc.

Having regard, therefore, to the liability of the quantity surveyor to the employer, lack of care and diligence in calling attention to any inaccuracies of the kind we have been discussing might ultimately render a quantity surveyor liable in damages to the employer for negligence.

It should be particularly understood, however, that the architect responsible for errors in dimensions and levels, etc., on the drawings in the first instance, cannot nevertheless shelve his own responsibility and throw the whole of the liability upon the quantity surveyor.

We repeat, the quantity surveyor owes a duty to his employer to take out the quantities carefully and skilfully, both for the purpose of tendering and otherwise. This principle is well enunciated in an old case (Moneypenny *v.* Hartland (1826), 2 C. and P. 378, N.P.). Here an engineer was employed to estimate the cost of a bridge and road about to be erected by a committee. Previous to his appointment, another person had been employed by the committee to make experiments with a view to discovering the nature of the soil. This person reported to the engineer that the soil was hard marl rock, and the engineer made use of this information without making any experiments himself. It was found, after the work had begun, that the soil was of clay, and that dealing with it caused a considerable extra expense in the case of both the bridge and road. The Court held that if an engineer is employed to make an *estimate* of the expense of certain works, he is bound to ascertain for himself, by experiments, the nature of the soil, although a person previously employed by the building owner gives him by their desire, information of the result of his research. If an engineer, moreover, employed as above, makes a low estimate and thereby induces persons to subscribe for the execution of the work, who would otherwise have declined it, and it turns out afterwards that such estimate is incorrect, either from negligence or want of skill, and that the work cannot be done but at a much greater expense, he is not entitled to recover anything for his trouble in making such estimate.

Composite Specification and Bills of Quantities.

In the case of tenders for contracts of small amounts (*e.g.*, £1,500 to £2,000), it is not unusual to use a composite specification and bill of quantities, but it should be noted that the issue of good drawings is a necessity in such a case, for only then will it be found possible to prepare these documents rapidly and efficiently.

Assuming that the drawings are adequate, standard preliminaries and description of materials can be prepared suitable for different bodies, and only notes on the specifications for the purpose of amplifying the drawings, should such be necessary, are required. It is obvious, then, that much of the cost of preparing a full specification is saved, nor is it necessary to issue the drawings to each tendering contractor. The form of this composite document permits of it being used as a specification, and by means of an index at the end any items not fully specified in the drawings or by the quantities can be amplified.

It is thus seen that this composite form differs considerably from an ordinary bill, but the standard system of measurement is kept to in principle, while every item involving cost to the contractor, is either measured or described. Other advantages are the simplicity of the document, while the respective units of work are easy to visualise, a fact of importance as regards keeping down the cost of small pieces of work. Again, the composite bill provides a common basis of tendering as well as a detailed schedule for the settlement of variations.

The specification items in the composite document can be regarded as "preambles" to the bills of quantities. They must, therefore, be carefully studied when pricing the items giving quantities in the bill portion of the document. If the specification item or preamble is not priced, regard must always be given to it in arriving at the unit price of the quantity item, as that price must stand, especially when it is required for and in adjusting extras.

Inasmuch as a composite specification and bill of quantities forms part of a contract, it defines the amount of work which, in a lump-sum contract, is included in the price named. It follows, then, as has been shown in the case of an ordinary bill, in a contract where bills of quantities form part of the contract, that if a contractor, in order to complete the work under the contract, has to do more work than is taken up in the bills of quantities, he is entitled to an additional sum for that work. In this connection we may again mention that when the contract is formed of a specification and drawings alone, rarely, if ever, do they include or show, or, indeed, can they include or show, all the items contemplated in the work to be done under a lump-sum contract.

Synthetic Granite: a Scottish Inquiry.

Aberdeen County Council is making inquiries into the possibility of using synthetic stone for building purposes in connection with their housing schemes. There are huge stores of granite chips available in the Aberdeen quarrying centres, and it is claimed that the manufacture of synthetic stone would be cheaper than ordinary granite, although a little dearer than using brick. The Aberdeen County Council is also studying the effects of special colour treatment in order to relieve the drab effect of concrete mortar colour.

IN PARLIAMENT

Town and Country Planning.

Sir N. Grattan-Doyle asked the Minister of Health what number of local authorities had not taken any action in respect of planning schemes under the Town and Country Planning Act; and, whether any representations had been made to them by his Department as to the exercise of their powers under this Act.

Sir K. Wood said that the number of local authorities in whose areas a planning scheme was not either approved or in course of preparation was 329. The extent of planning control was increasing by an average of 150,000 acres per month, and where a need of planning powers became evident it was his practice to communicate with the local authority concerned with a view to the necessary action being taken.

The Glasgow Exhibition.

Miss Ward asked the President of the Board of Trade whether, before deciding to give a grant to the Scottish branch of the British Council of Art and Industry he had received an assurance that there would be a satisfactory reorganisation of the main committee in order that the result of this work would be more creditable to Great Britain than the British pavilion at the Paris Exhibition.

Captain Wallace said that the plans for the display by the Scottish Committee of the Council for Art and Industry at the Glasgow Exhibition were being prepared in the light of experience gained at the Paris Exhibition last year. The President of the Board of Trade would be reluctant to ask for any assurance of the kind suggested in this question from a distinguished body of voluntary workers who had devoted much time and energy to public service.

Ranelagh Club Grounds.

Commander Marsden asked the Minister of Health whether he proposed to institute an inquiry into the conduct of members of the Barnes Corporation in connection with the sale of the Ranelagh Club grounds.

Sir K. Wood said that he understood that the Corporation had entered into an agreement with the directors of the club to which his hon. and gallant friend referred under Section 34 of the Town and Country Planning Act, 1932, with regard to the development of the grounds, and that the validity of this agreement was shortly to be tested in the Courts. In the circumstances he could express no opinion on, nor direct any investigation into, the propriety of the Council's action.

Underground Garages as Air-Raid Shelters.

Sir M. Manningham-Buller asked the Home Secretary whether, in view of the proved value in Barcelona of underground air-raid shelters, he had considered the feasibility of constructing such shelters under the squares and open spaces in London and elsewhere and reducing the cost of such shelters by utilising them normally for parking motor-cars.

Mr. G. Lloyd said that under the Act the duty of making arrangements for the provision of such shelters for the protection of the public as might be necessary rested upon the local authorities. Air-raid shelters specially constructed for this purpose would not necessarily be suitable as garages, though underground garages could, in certain circumstances, afford protection in air raids, and in considering any proposals for the construction of underground garages local authorities would doubtless keep in mind the suggestion of his hon. friend.

Cement-Latex Compositions for Flooring.

We acknowledge receipt of "The Properties of Cement-Latex Compositions for Flooring," by W. G. Wren, A.R.C.S., B.Sc. The subject was presented in paper form by the author at a meeting held at the Royal Empire Society, Northumberland-avenue, W.C.2, on October 11, 1937, when Professor R. G. H. Clements, M.C., M.Inst.C.E., presided.

WAR RISK INSURANCE

SPEAKING at the Insurance Institute on Tuesday, March 15, Sir William P. Elderton, C.B.E., Chairman of the British Insurance Association, said that property owners in Great Britain thought they ought to be able to provide some form of insurance to compensate them for damage from enemy action by air or by bombardment, and seemed to have the mistaken impression that until recently this risk had been met by existing insurances. Insurers never intended to cover this risk in any form, and the only changes they had made were designed to make this clear. Any attempt to cover war risk in advance of war would only create an illusion of security and not security itself.

A fundamental principle in any scheme of insurance was that it be possible to make an estimate of a premium sufficient to meet the risk. To do this some idea must be formed of the amount of damage that would occur and of the chance of a particular property suffering; it was also necessary that the insurer be able to meet the liability whenever it might arise. The first thing in considering the problem of insuring war risk was to see if a premium could be calculated; conditions had changed greatly since the Great War, and hostile aircraft could now do more damage. The difficulty in assessing a premium lay in the impossibility of making any accurate estimate of the damage to property in this country that might result in the event of war, and even if such an estimate could be made, in ascertaining in advance when the damage was likely to occur, for war might start this year or there might be no war for ten or twenty years. Were a few insurers to think that an estimate of the risk could be made and to decide that the annual premium charged should be one shilling per cent. of the value of the property, it would imply that the damage done to the properties insured would, on the average, over the number of years during which the premium was received be £500 for every £1,000,000 insured, and would take into account the frequency of war, and average the premium over the years without war as well as over those with war. Even assuming the rate of premium quoted to be correct, no insurer would have the money available to meet the claims from the premiums received if war occurred in the first year. It would be necessary to pay for damage twenty times the amount received in premiums.

On the hypothetical figures assumed the total damage from war would be £20,000,000, and the premiums received £1,000,000. If insurance companies were to cover the risk, the difference between the £20,000,000 and £1,000,000 premiums would have to be found out of reserve funds in other departments.

Other Difficulties.

There were other difficulties. During war time the ordinary work of a country underwent fundamental changes: the energies of the workers were deflected from ordinary channels into others connected with the war. Building operations and the manufacture of furniture, for instance, were postponed and their place taken by the manufacture of armaments so that when war came the damage done could not immediately be replaced; also, rebuilding in a vulnerable area would be asking for further immediate losses. If insurances were granted against war risk and the insurers could assess the damage in terms of money, the payment would not necessarily mean reinstatement.

It was neither wise nor even fair that a margin built up out of profits made from certain classes of insurance and put aside for their safety should be imperilled in order to underwrite an extremely dangerous kind of catastrophic risk not hitherto covered. If a war started to-morrow no one could estimate whether the risk could be met by a 10 per cent. rate or a 3 per cent. rate, nor could anyone know when there would be a war nor how long it would last. To pretend therefore to assess a premium and then to cover the risk would not be insurance but gambling.

It had been suggested that a sort of insurance against, or a compensation for, damage done in war could be arranged in a different way and a company had been formed with a mutual pooling scheme in view. This scheme differed from an insurance company in that it was set up for the particular purpose and had no reserves outside the contributions, less expenses. But the inherent weakness was the same: the real risk of loss was unknown, and even if a substantial sum were invested, depreciation of assets would materially reduce it.

It might seem that the Government would be in a better position to grant war risk insurance than insurance companies and underwriters, but it was well-nigh impossible to imagine an immediate national scheme. The suggestion had been made that the Government should start a scheme now and use the premiums or contributions towards its defence schemes. The Government had already instituted a National Defence Contribution and any extension so that the Government collected contributions from all owners of property of any kind would lead merely to another form of general taxation.

The speaker questioned whether property owners must face the unhappy position that if they lost anything in an air raid or bombardment compensation would be impossible. He did not consider that the correct inference. When war came the Government might then put into operation some scheme such as that used in the last war, or, alternatively, when the war was over it could then replace or compensate. The cost of replacement could be estimated and spread fairly over the community as a whole. Perhaps arrangements such as this were what the Government intended, but there was no intention of attempting to provide a Government insurance scheme in advance.

It would be easy for insurers to say: "The public wants insurance against war risk; let us give it to them." But what would be given would not really be insurance: insurance against war risks at the present time was an impossibility

BOOK REVIEWS

The Weather Vanes of Norfolk and Norwich. By CLAUDE J. W. MESSENT, A.R.I.B.A. (Norwich: Fletcher & Son, Ltd., Castle Works.) Price 3s. 6d. net.

The object of this book is to give a general history of weather vanes from Norman times to the present day. As the author points out, the subject is far larger than the general reader would at first realise, the design of vanes embracing many branches of learning, including heraldry, inn and trade signs, religious symbols, and scenes from crafts and sports. The book contains well over 100 illustrations from sketches by the author.

Practical Geometry for Builders and Architects. By J. E. PAYNTER. (London: Chapman & Hall, Ltd., 11, Henrietta-street, W.C.2.) Price 6s. net.

This book is intended as a text-book for the architect, the surveyor and the student, and for practical men engaged in the various branches of the building industries. The examples throughout are specially selected with a view to their practical application, and are chosen in such a way as to simplify some of the difficulties which arise in workshop practice. The work should be valuable to technical students who are studying practical geometry in connection with building construction, carpentry and joinery, and other similar subjects.

Woodwork in Design and Practice. By RODNEY HOOPER. (B. T. Batsford, Ltd., 15, North Audley-street, London.) Price 12s. 6d. net.

This is a book that will be of the greatest assistance to architects, designers and draughtsmen, as well as to students in technical schools and amateur craftsmen. The author gives a variety of treatments for the design and construction of domestic furniture and shows a refreshing independence of outlook in his designs for the newer objects of furniture such as radio-gramophone cabinets and electric light fittings, etc. His combination of antique with modern functional ideas has resulted in a wide range of furniture types. Mr. Hooper's guiding principles have been the use to which each piece of furniture is to be put and the materials of which it is constructed. There are more than 100 sketches and diagrams and also over 30 photographs of finished examples of cabinet work by well-known designers.

Building Societies' Year Book, 1937. Official Handbook of the Building Societies' Association. Edited by G. E. FRANEY, O.B.E. (Franey & Co., Ltd., 37, Cursitor-street, E.C.4.) Price 7s. 6d. net.

In a foreword contributed to this Year Book the Prime Minister congratulates building societies on their unslackened progress and the important part they have played in the economic structure of the country in recent years. Full information as to the extent of that progress is to be found in the book. Graphs show the increase of assets from £77,000,000 in 1919 to £656,000,000 in 1936.

The year's operations in Great Britain are fully reviewed, and there are shorter analyses of the position of the movement in the Dominions and abroad. The personalities of the building society world are given in a comprehensive "Who's Who," and the affairs of the Building Societies Institute, staff cultural organisation of the movement, are dealt with in a separate section.

The China Architects' and Builders' Compendium, 1937. Edited by J. T. W. BROOKE, A.R.I.B.A., and R. W. DAVIS. (Shanghai: *North-China Daily News and Herald, Ltd.*) Price 8s.

In the preface of the 12th issue of this compendium the editors state that although building activity is still far behind what may be considered the normal for a city of the size and importance of Shanghai, there were undoubted signs of improvement and a general recovery in trade during last year. These statements were obviously made before the outbreak of the Sino-Japanese war. The compendium contains detailed information connected with land, property and building, and a scale of professional charges.

Shipping Marks on Timber. Embracing Sawn and Planed Wood, Joinery, Hardwood and Plywood exported from the producing Countries of the World. (Benn Brothers, Ltd., Bouverie House, E.C.4.) Price 15s.

In compiling the 12th edition of *Shipping Marks on Timber*, every effort, it is stated, has been made to obtain from shippers and their agents verification of the information given. That the new edition is needed is obvious from the fact that approximately one-half of the shippers and agents included in the last edition (published four years ago) called for some revision of the information given concerning them.

The book contains lists of the technical terms used in the timber shipping trade (English, Spanish, French, German and Swedish equivalent); timber and plywood agents and brokers; world shippers and their agents; European shippers and their marks; countries outside Europe—shippers and their marks; and plywood shippers of the world and their marks.

BOOKS RECEIVED

Charles Hayward's Carpentry Book (London: The English Universities Press, Ltd.). Price 6s. net.

Architects' and Builders' Pocket Price Book. Edited by Clyde Young, F.R.I.B.A. (London: E. & F. N. Spon, Ltd.) Price 5s. net.

Specification, 1938. Edited by F. R. S. Yorke, A.R.I.B.A. (London: The Architectural Press.) Price 10s. 6d. net.

The Evolving House. Vol. III. Rational Design. By A. F. Bemis. (London: B. T. Batsford, Ltd.) Price 17s. net.

Workmen's Compensation. 31st Edition. By W. Addington Willis. (London: Butterworth and Co. (Publishers), Ltd.) Price 20s. net.

BRICK AND THE ARCHITECT

THE annual luncheon of the South-Eastern Federation of the Building and Engineering Brick Trade of England and Wales was held on Monday, at the Holborn Restaurant, London, at which Mr. C. H. James, A.R.A., F.R.I.B.A., addressed the members. Mr. H. J. Lawrence (President) was in the chair.

Mr. James said that until the War, he supposed, the 2-in. brick, misshapen and very rough in texture, was the most popular. But gradually things had changed.

He knew that the men of his own generation were now asking for a brick which was reasonably square and of fairly uniform colour—they did not want a brick which was covered with blotches due to stacking in the kiln. Most modern buildings were very simple and really did not require bricks which varied tremendously in colour and texture.

"I will let you into a secret," declared Mr. James, "as to the reason why bricks should not be 3 in. thick. In these days the best architects are very careful with their detail drawings, and there is nothing more annoying to an architect than to have to space out a drawing of ½-in. detail with bricks rising four courses to 13⅝ in. Every architect wants a brick which will enable him to put his scale up the drawing and mark out four courses to the foot. That calls for a brick which is not more than 2⅝ in. thick, or, generally speaking, slightly less than that. . . . With all respect to you brickmakers, we do not wish to see a wall which is wholly of brick; we like to see a decent padding of mortar between the bricks, because your bricks are shown off infinitely better if there is mortar between them than if the wall is composed almost entirely of bricks." A much despised brick for which he had rather an affection when it was used properly was the gault brick. He had lived in a house which was built 70 years ago of gault bricks, and those bricks were in every way as sound at the end of 70 years as when the house was built. His firm, said the lecturer, used a large number of them for light wells.

"The Swedes and the Danes, who have practically no brick-earth in their countries, wonder why we ever face our buildings with roughcast or with concrete when we have such marvellous bricks here; and it always seems the same to me," said the lecturer. "I always say that when I can find a better facing material than brick I shall use it; until I do find it I see no reason to depart from my usual custom. I was born in the stone country and I always regret very much that wherever bricks are made in the stone country they seem to be produced as red as possible so that they defile the landscape as much as possible. Why the brickmakers in the Cotswolds cannot, by using mixtures with chemicals or by other means, produce a brick which will harmonise to some extent with the stone of the neighbourhood I can never understand." However, he believed that nowadays some concerns did make bricks rather less of an engineering character than was the case formerly.

Brick manufacturers had been experiencing a considerable amount of competition from imported Dutch facings. "One reason why they are popular is that they have a different appearance from that of English bricks. It is a great thing that modern brickwork should look different from anything done before! The Dutch bricks are popular partly because they have new shades of colour. There is a very pleasing lemon-grey brick, which was used by Mr. Tait for the Burlington School for Girls at Wormwood Scrubs; there is also a Dutch brick of a pinky-grey colour. I am sure that the English brick manufacturers can do what the Dutch brick manufacturers have done.

"I think that more specials—I mean ready-made arches and skewbacks, and possibly ready-made three-quarter backs—would be advantageous. On one job we are using ready-made skewbacks and arches—I mean that they are made to our details without any difficulty—and indeed, on the Hertfordshire County Hall we are using vaulting bricks. If there are 33 bricks in each rib, and each rib is multiplied by four times 33, we are able to have all the rib bricks of the vaults made specially at less cost than that at which we could cut and rub them.

"It seems to be the usual thing in this country to build important public buildings of stone, but personally I can never see why. I should not like to say how much more a stone facing costs than brick, but it must be in the neighbourhood of 2d. per cub. ft. on the building—*i.e.*, nearly 7 or 8 per cent. In my opinion the advantages are not worth the money."

He had a great affection for the London stock brick. At one time it was considered to be the sort of brick with which to build the back of a structure, but he had used it all round many buildings, and could honestly say that he had never found a better brick. It could be used for retaining walls against earth, or for any purpose of that kind; it never flaked or gave any trouble.

Later, Mr. James, responding to various points raised, said: "With regard to damp walls, during the last 15 years I have not been guilty of using cement mortar in brick walls, except in 4½-in. internal walls and in cases where I have been compelled by local authorities to use it. I am quite convinced that one of the reasons for damp walls is the use of cement, which sets very hard and very quickly, leaving a capillary space between the joints of the bricks, and the water gets through that space. Incidentally, cement is the cause of practically all the efflorescence, on walls; I think the calcium sulphate, or whatever forms the efflorescence, does not come out of brick walls which are built with lime mortar, or, if it does, it comes out through the mortar joint and not through the brick. In a house which I erected for myself in 1922, I built the parapet with cement mortar and the rest of the building with lime mortar, and the parapet was the only part of the building which ever exhibited efflorescence.

"I do not advocate a 2-in. brick, but a brick which will comfortably build four courses per foot. I think that many buildings may be improved by the use of a 2-in. brick, but I do not think that any bad building will be made any better by a 2-in. brick."

Among those present were Mr. Horace Boot, Mr. M. S. Whitehouse, Mr. R. C. Hassett, and Mr. H. Greville Montgomery (Secretary).

INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

We do not undertake to reply to inquiries concerning proprietary materials.—ED.

QUESTIONS.

Party Fence Walls.

SIR,—What is the procedure with regard to repairing a party fence wall, and what is the method adopted in meeting the cost of the repairs? L. W. H. B.

[If this is a party fence wall, then under the London Building Act, 1930, either owner has the right to repair it, pull it down, or raise it, or to rebuild it as a party wall. The owner taking the initiative is the "building owner," and he must give notice to the "adjoining owner." Within a month the adjoining owner can serve a counter notice on the building owner as to what he wants done. In general, the cost is borne by both of them in the proportion of user of the wall. There is provision for the settlement of differences by each appointing a surveyor, and they, too, appointing a third surveyor.—ED.]

Primers for New Plaster.

SIR,—Can patent primers be safely used on the surface of new lime plasters without checking the drying and setting of same? By this I mean, is the action a "sealing" action or a chemical action neutralising the properties of the plaster which would otherwise attack the pigments and leave the surface porous? DECORATING.

ANSWERS.

Waterproofing Garage Pits.

[ANSWERS TO "L. S.," MARCH 18.]

SIR,—If the pits are small, and your correspondent has tackle by which a pre-cast waterproofed concrete tank can be lowered into position, the suggestion to fit such a pre-cast tank inside each of the pits would be practicable, but each tank would have to be reinforced, and as its deadweight might not equal or exceed the upward pressure of the water, it would be necessary to provide corbel courses pinned into the walls at the top of the tank to hold it down. The usual method of doing such work is to form a sump outside of the existing structure from which the subsoil water can be pumped continuously so that it is kept below the present floor-level, and then to form the waterproofed concrete tank *in situ*, extending the concrete and the reinforcement to the floor into chaces cut in the bases of the walls, so that the tank is pinned down and resists the upward pressure of the water. A suitable composition for the concrete would be three parts of ¾-in. crushed ballast, two parts of coarse, clean sand, and one part of Portland cement, with the addition of a good brand of waterproofing liquid or powder.

As the tank is small, a thickness of 4 in. for the walls and floor would probably be amply sufficient if reinforced with ⅜-in. diameter round steel rods, placed 9 in. apart in both directions to form a square mesh, the ends of alternate rods being turned up into the walls at one end, and the other running into the chace in the wall on the opposite side.

A. J. T. E.

An answer from Sealocrete Products, Ltd., to the query of "L. S." in our last issue, has been forwarded.

Bleaching American Oak.

[ANSWER TO "H. B. H.," MARCH 11.]

SIR,—The purpose of your correspondent's inquiry is not clear. The type of American oak used is important, as the treatment by bleaching of each has different effects. Further, if it is intended to retain the bleached appearance after polishing, I would recommend the use of white wax, but any polish must have some effect on the bleached wood. There are several proprietary bleachers on the market which have the effect in various degrees of taking the colour out of the wood in the same way that oak can be artificially weathered by treating with lime. Such treatment is, of course, different from the "limed oak" known in the furniture trade, which consists of filling the grain of the wood with a white filler which gives a bleached effect.

A. J. T. E.

Chalk Foundations.

[ANSWER TO "FOUNDATIONS," MARCH 18.]

SIR,—A sloping site with a chalk subsoil will give no trouble, as side-slipping is very unlikely, and chalk, provided it is hard and dry, makes a strong foundation. If chalk becomes wet it softens and makes an insecure foundation, and is liable to cause unequal settlement of the building. Good drainage is important with a chalk subsoil. W. E. W.

Water Paint.

[ANSWERS TO "ARCHITECT." MARCH 18.]

SIR,—Provided you treat the new plaster with a petrifying liquid in the early stages of the job you can apply an oil-bound water paint with good results, but remember to get the materials and directions from a first-class paint firm. An oil-bound paint will certainly not arrest the hardening of plaster.

G. W. H.

SIR,—An oil-bound water paint, as distinct from an ordinary distemper, must tend to seal the surface of plaster to a limited extent, and, if applied at a very early stage, will check the setting of plaster. This, however, is not detrimental to the plaster, and is entirely different from the action of frost, for example, which actually disintegrates the crystalline process of setting. In this other case, the action is merely delayed, and will complete its hardening in due course, though the distemper surface must offer temporarily in the process. SURFACE.

NOTES ON ESTIMATING FOR BUILDERS' WORK—XI.

By J. H. BARNS, F.I.O.B.

JOINER (*continued*).

Sashes and Frames.

— ft. super. deal-cased frames and 2-in. ovolo moulded double-hung sashes, oak cills, 1-in. deal inside and outside linings, 1½-in. pulley stiles and head, tongued to linings, ½-in. back lining, with parting bead and return beads, including brass-faced axle pulleys, and hanging with cast-iron weights and flax lines.

Example:—

A window, as above, 3 ft. 6 in. by 6 ft. 4½ in. = 22 ft. 4 in. sup.

MATERIALS.

ft.	in.	ft.	in.		ft.cu. s.	d.	£	s.	d.
3	6								
0	6								
0	3	0	5	Oak cill (say, American).	8	0	0	3	4
3	6								
0	6	1	9	1¼ in. deal head ..	4	0	0	0	10½
2/3	0								
0	4½	2	3	1 in. inside and outside linings, top					
2/2/6	4								
0	4½	9	6	Ditto., sides	4	0	0	3	11
		11	9						
2/6	0								
0	6	6	0	1½ in. pulley stiles ..	4	0	0	3	0
2/6	0								
0	6	6	0	1½ in. back lining ..	4	0	0	1	0
2/5	6								
0	2½	2	4	½ in. wagtail (parting slip).	4	0	0	0	5
2/2	9	5	6						
2/5	9	11	6						
		17	0	1 in. by ⅜ in. inside return bead.	4	0	0	0	5
2/5	9	11	6	⅜ in. parting beads at 1s. 6d. per 100 ft.	—		0	0	2
				SASHES.					
2	9								
0	4½	1	0	2 in. deal (bottom rail).	4	0	0	0	8
2	9								
0	4½	1	0	2 in. deal (meeting rail for two) ..	4	0	0	0	8
2	9								
0	2½	0	7	2 in. deal (top rail) ..	4	0	0	0	5
2/5	8								
0	2½	2	4	2 in. deal (sides) ..	4	0	0	1	7
		4		Brass-faced axle pulleys at 9d. each ..			0	3	0
				Blocks, glue, glass-paper, nails, sash-line, say			0	1	4
		4		Cast-iron weights, say wt. 40 lb. at 12s. per cwt.			0	4	4
3	6								
6	4½	22	4	Preparing and fixing sash and frame, at 1s. 8d.			1	17	3
				For 22 ft. 4 in. super			3	2	4½
				Per ft., say			0	2	10

Add profit and on-costs.

Labour for 2½-in. deal sashes and frames (otherwise detailed above), 1s. 10d. per ft. super., with a proportionate increase for the additional material required.

If sashes are divided with bars into small squares, add about 3d. per ft. super. for labour.

For smaller-size sashes and frames under 12 ft. super., add 30 per cent. labour; under 6 ft. super., add 50 per cent. labour.

Extra for moulded horns to sashes, about 6d. each.

If lead weights are specified (owing to plate glass being used), this would probably mean an increase of 50 per cent. on the weight of cast-iron sash weights, and the difference in cost due to the weights being in lead in lieu of iron.

Example:—

For a similar size sash to that detailed above.

	£	s.	d.
Wt. 60 lb. in lead sash weights, 56s. per cwt.	1	10	0
Deduct:			
Wt. 40 lb. in cast-iron ditto, 12s. per cwt.	0	4	4
Difference in cost per sash ...	1	5	8
Difference in cost per foot, say	0	1	2

The expense of lead weights can sometimes be avoided by increasing the size of the wood-boxing to frames, and using special cast square iron weights, jointed if necessary to get the weights into the pocket piece of the frame.

Hardwood for Joinery.

The purchase of hardwood for joinery is even more complex than the purchase of deal, as each variety has many qualities and methods of measurement.

Mahogany.

This is usually imported into this country in logs and sold either to the large merchants direct or to other timber dealers by public auction. The sales are usually advertised in *The Builder*. Mahogany is sold in the log, at what is known as broker's measure, which seems to consist of a rule by which 12 in. is charged as 10½ in., with an allowance for faults and defects, and in practice this would mean that about 25 per cent. less is charged for the wood by broker's measure than for actual contents.

After the mahogany is cut and seasoned it is sold by board measure, by which the actual contents of the board are measured and charged. It is usual to mark the superficial area of each board on the board itself, to facilitate checking.

Honduras Mahogany.

The price of this mahogany varies considerably with the qualities of the wood. In the log it would cost from 9d. to 1s. 6d. per ft. super. as 1 in. If bought properly seasoned from a timber merchant it would cost from 1s. 6d. to 4s. per ft. super. as 1 in., the price depending upon the width and length of the boards and the general quality, figure of the wood and freedom from defects. An ordinary width of a board cut from a log is 18 in., and for this the lower price may be charged, but for greater widths, up to 3 ft. and over, higher prices are charged. If special boards are allowed to be selected from a log they may be charged at about 2d. per ft. super. extra.

Some of this wood is imported sawn to different widths and thicknesses, with a square edge and of an average length of about 10 ft. and about 6 in. to 18 in. wide. This, of course, saves considerable loss which is incurred by straightening the board cut from the log and ripping off the sappy edges and defects. The price is correspondingly higher for prime wood, and for second quality wood the price is much lower.

Cuba Mahogany.

This is imported in comparatively small quantities, and the price would be within the range of figures mentioned for Honduras, except for selected parcels, the price of which would depend upon the amount of figure in the boards. In some instances of exceptionally finely figured boards they have fetched up to 26s. per ft. super. as 1 in.

African Mahogany.

This is usually imported in logs from Lagos, Benin and other West African ports, and is mostly of excellent quality. Lagos and Benin woods are of good length (up to 30 ft. can be obtained) and in widths up to 36 in., but they are sometimes rather dark in colour. Some of the wood has a grain very much like cedar.

The price of African mahogany in the log would be from 6d. to 1s. per ft. super. as 1 in., and if seasoned would be from 1s. 4d. to 1s. 10d. per ft. super. as 1 in.

While it may be easy to distinguish between different samples of Honduras, African or Cuba mahogany, one frequently meets with some African mahogany which is almost indistinguishable from Honduras, and Honduras mahogany which is almost indistinguishable from Cuba or African. Honduras mahogany has few of the "lightning" or "falling" shakes which are sometimes met with in African mahogany, and where they occur the board would readily split into short pieces which would make it almost impossible to work by machine, and the log would be more or less useless, at any rate for builders' purposes. A piece of nice even grain African or Honduras mahogany would machine almost as easily as deal, but not infrequently one meets with boards which are "woolly," and this considerably increases the cost of working.

Oak.

Wainscot oak billets are imported from Austria and Czechoslovakia, Volhynia, etc. If purchased in the billet, these are usually sold by calliper measure, by the customs fund measurer. The calliper is used to take the sizes of the log, which is measured at the widest part, and therefore by calliper measure you will be paying for about 25 per cent. to 30 per cent. more timber than is actually in the billet; in other words, you are making 25 per cent. to 30 per cent. loss on measurement. This would also apply to some birch logs. Some of the highest grades of wainscot come from the Austrian districts. Prices run from about 1s. 1d. upwards per ft. super. as 1 in.

Japanese Oak.

This is now imported sawn to different sizes as scantlings, and graded either as plain (*i.e.*, straight grained), or figured. When cross cut some of the cheaper qualities have a caney appearance on the end section. The quality is usually very good, and the price (which will depend upon the length, width and general quality) is from 9d. to 1s. 2d. per ft. super. as 1 in.

American Oak.

As now imported, this is often of low grade, but for equal quality the price is about the same as Japanese. A cheap kind of sawn oak is imported in planks and called "White Oak." It has a strong reddish colour; when drying it develops shakes and splits.

Teak.

This is usually imported from Bangkok, Rangoon and Moulmein, and is sawn to different sizes and very carefully graded. The prime quality is usually entirely free from defects. A fair average length for teak would be 9 ft. For anything over this the price rises considerably. The prices are from 1s. to 1s. 6d. per ft. super. as 1 in., for ordinary widths and lengths.

In selecting teak for joinery it is necessary to be careful to get the milder woods, such as those of the B.B.T.C.L. brand, as they are so much more easily worked than some of the harder brands. No doubt for ordinary purposes the harder brands may be employed.

Prime American Whitewood.

1 in. thick by 6 in. and upwards wide, 6d. per ft. super.
1 in. thick by 12 in. and upwards wide, 7d. per ft. super.
1 in. thick by 18 in. wide, 9d. per ft. super.
Other thicknesses at *pro rata* rates.

Yang is sometimes used as a substitute for teak because of its reddish-brown colour.

This wood develops splits and shakes when drying, and, while not perhaps poisonous to work, it gives off an objectionable smell when being cut. Price about 8s. per ft. cube.

American Walnut.

This costs about the same as Honduras mahogany for similar quality and width of wood and is largely used for furniture.

THE TIMBER TRADE FEDERATION

ANNUAL DINNER.

The importance of timber in the markets of the world was stressed by Captain the Rt. Hon. D. Euan Wallace, M.C., M.P., Parliamentary Secretary to the Board of Trade, on Wednesday, March 16, when he spoke at the annual dinner of the Timber Trade Federation of the United Kingdom, held at Grosvenor House, London. Major A. I. Harris, President of the Federation, presided.

Capt. Wallace, who submitted the toast of "International Trade," began by saying that this country had a population of 468 persons to the square mile, and a large and profitable overseas trade represented the difference not merely between greater or lesser prosperity, but actually between affluence and starvation.

He continued: "Between 1929 and 1931, the value of overseas trade declined by more than £740,000,000. The result was an increase of one and a half million in unemployed, and a crisis which turned out to be political as well as economic. World trade, which at the worst period of the depression had fallen to about 75 per cent. of its 1929 volume, returned last year to within 3 per cent. of the 1929 figure; and to that figure the United Kingdom has made a very substantial contribution."

The speaker declared that timber was of great importance in world trade, ranking, as it did, fifth in value among the raw materials and foodstuffs which are exchanged between nations. So far as this country is concerned, imports of timber (valued last year at £62,000,000) were the largest item in the raw material class; they represented one-fifth of the total value of our raw material imports.

The timber trade provided a good reflection of the general trade situation, and although there had been a setback in some industries of recent months, it had not been general, and the evidence available showed no reason why it should be prevalent. In conclusion, the speaker pointed out that the Government slum-clearance schemes and the rearmament programme should go some way towards ensuring that timber consumption remained at a high level.

In response, Sir Alan Garrett Anderson, G.B.E., M.P., Hon. President of the International Chamber of Commerce, said if we did not have an ample exchange of timber it would mean failure for this country in all those activities for which timber was supplied. We should be shut off from all those advantages which timber gave us.

The toast of "Peace at Home and Abroad" was proposed by Lord Macmillan, G.C.V.O., who said that so far as the timber trade was concerned, there was no trade which was more dependent on peace, for peace was a time of construction, not destruction.

Admiral of the Fleet Sir Roger Keyes, G.C.B., etc., who replied, supported the rearmament policy of the Government. British sea power, he said, must be maintained at all costs; it was the best guarantee of peace in the world.

Mr. F. Handley Page, C.B.E., President of the Society of British Aircraft Constructors, who also replied, said that he was not sure that in the aircraft industry they had not got to the point where they could really give up using wood. Nevertheless, he was much impressed when he visited Italy and saw there aeroplanes with wings constructed almost entirely of wood; and one could not say that their performance was inferior to that of machines using other materials. In times of crisis they must look to all sources of supply and they could not overlook timber. He considered that there was a great field for technical advancement in wood which they could not afford to neglect.

Lord Kennet of the Dene submitted the toast of "The Guests," and the Earl of Dudley, T.D., D.L., J.P., responded.

Among those present were the Earl of Dunmore, Sir Geoffrey Clarke, Sir Roy Robinson, Sir Alexander Rodgers, Col. W. J. Beddows, Col. N. I. Wright, Dr. S. E. Wilson, and Messrs. A. T. Ashworth, James Austin, E. H. B. Boulton, T. A. Darcy Braddell, H. Cyril David, R. Lyle Dobell, Robert Fothergill, W. F. Gibson, John Gloag, James E. Harvey, Ernest C. Horton, E. Locks Latham, A. M. McVey, Percy B. Meyer, Chas. D. Phillips, C. A. Priday, W. A. Robertson, and W. O. Woodward.

BUILDING STATISTICS.

EMPLOYMENT FIGURES.

During February, employment showed a slight seasonal improvement, states the current issue of the "Ministry of Labour Gazette," and was moderate on the whole. The improvement affected all administrative divisions, and all occupations, but was most marked with painters and decorators. As regards individual occupations, employment was still very slack with painters, slack with slaters and tilers and with plasterers, and moderate with other classes of skilled operatives. With labourers to skilled occupations and builders' labourers, employment was slack, and with navvies and general labourers, and certain other occupations, very slack.

At February 14 last 179,254 insured operatives were registered as unemployed—a percentage of 17.3, which compares with 19.5 in January and 15.9 in February, 1937.

BUILDING PLANS APPROVED.

Returns as to the estimated cost of buildings for which plans were approved during February have been received from 142 local authorities (representing towns with a population of 17,270,000 in 1931). The returns show that, in February, 1938, plans were passed for buildings with an estimated cost of £7,736,200, compared with £10,562,200 in February, 1937—a decline of 26.8 per cent.

Comparative figures for various classes of building for February, 1938, and February, 1937, are:—

	Feb., 1938. £	Febr, 1937. £
Dwelling-houses ...	4,648,800	5,222,000
Factories and workshops	406,800	1,330,400
Shops, offices, warehouses and other business premises ...	953,100	969,400
Churches, schools and public buildings ...	753,200	1,739,900
Other buildings, and additions and alterations	974,300	1,300,500
	7,736,200	10,562,200

Figures for January, 1938

In our last issue figures were given for 143 local authorities in respect of plans approved during January, 1938. Returns for the latter month are now available for all of the 146 local authorities covered by the Department's inquiries (representing towns with a total population of 17,864,000 in 1931). The estimated cost of the buildings included in the returns was £8,761,300, compared with £10,102,500 in December, 1937, and £8,472,300 in January, 1937. Of the total for January, 1938, dwelling-houses accounted for £5,482,400; factories and workshops, £627,900; shops, offices, warehouses and other business premises, £801,100; churches, schools and public buildings, £875,400; other buildings, and additions and alterations to existing buildings, £974,500. The number of dwelling-houses for which plans were approved by the 146 authorities in January was 11,458, as compared with 13,972 in December, 1937, and 9,141 in January, 1937.

The late Mr. E. Parkinson.

It is with regret that we report the death of Mr. Ernest Parkinson, President of London Association of Master Slaters, who died suddenly on Sunday on his arrival at Euston Station from a holiday cruise. Mr. Parkinson, who was 63, had not been in good health for the past few months.

BRITISH ELECTRICAL DEVELOPMENT ASSOCIATION

ANNUAL LUNCHEON.

The Rt. Hon. E. Leslie Burgin, LL.D., M.P., Minister of Transport, proposed the toast of "The British Electrical Development Association" at the annual luncheon of that body, held on Friday last at the Savoy Hotel, London. Alderman J. Chuter Ede, J.P., D.L., M.P., President of the Association, was in the chair.

Mr. Burgin recalled that the Association was formed in 1919 by a band of pioneers. He was glad to know that Mr. Alex. C. Cramp and Mr. J. W. Beauchamp were with them that day.

Proceeding, the speaker said: "I am struck by your expansion. Looking back to 1919 and passing on a few years to 1927, when you had got into your stride, I then look at the figures for 1937 and I find that the multiples by which the figures for 1927 have been expanded are a revelation of the way in which you have advanced in the field of industrial activity. What do you take for your yard-stick of industrial expansion, capital expenditure, revenue or consumers, or all three? In 1927 your capital expenditure was of the order of about £240,000,000, revenue £40,000,000, and consumers 2,000,000. And 10 years later capital expenditure was £570,000,000, income £70,000,000, and consumers 8,500,000. Figures of that degree of expansion tell their own tale.

"When it comes to my turn as Minister to submit to Parliament measures for the improvement, as I hope, of the distribution side of the industry the objective will be that the problems should be handled as business problems, a mixture of the technical and practical. If we are sensible enough to realise that unity is strength, and that all other things being equal a larger undertaking can afford more for research and technical development than a number of small units dispersed over a wide area, and if we keep in the view the point that the test will be what the consumer thinks and what the consumer refuses, and also if we do manage to bring about a technical and practical improvement to the consumers' advantage, then indeed will the mantle of genius have fallen upon those who draft this measure and on those who pilot it through democratic assembly."

The chairman, in responding, said the whole of the supply side of the industry was concerned with giving the best possible service it could to the consumer, and they hoped that the results of their efforts, when they fructified, would enable the industry to give that service to as wide a proportion of the population of the country as was possible.

Among those present were the Rt. Hon. Lord Eltisley, the Rt. Hon. Viscount Falmouth, the Rt. Hon. Earl Lytton, Sir Percival Bower, Sir Harry Brittain, Sir Philip Dawson, Sir James Devonshire, Sir Arnold Gridley, Sir Laurence Halsey, Sir Cyril Hurcomb, Sir George Lee, Sir Archibald Page, Sir Leonard Pearce, Col. Sir Thomas Purves, Professor P. Abercrombie, and Messrs. W. F. T. Pinkney, Maurice E. Webb and F. R. Yerbury.

FEDERATION OF PLATE GLASS INSURANCE SOCIETIES.

At the eighteenth annual meeting of the Federation of Plate Glass Insurance Societies held in London on March 9, Mr. C. P. C. Hitchen, of Leeds, was re-elected President; Mr. J. Gowers, of Watford, was re-elected Chairman of the Council; Mr. T. B. Stead, of Leeds, hon. treasurer; and Mr. B. T. Stevenson, of Tunbridge Wells, hon. secretary. Last year's council and executive were re-elected *en bloc*.

The Blackburn Chamber of Trade Glass Insurance Association and the Oldham Mutual Plate Glass Insurance Society were elected to membership.

Mr. B. T. Stead, of Leeds, read a paper on "Claims," dealing, in the course of his remarks, with claims organisation, the possible extension of cover for policies, and third-party claims.

NEW BUILDINGS IN LONDON

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Where business representatives cannot be seen personally at this stage, this should be mentioned. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

ADDINGTON.—Houses.—The Croydon C.B. has passed plans for Messrs. Bennett, Worskett and Bennett, 73, Gower-street, W.C., for 33 houses with garages at 1-33 and 2-32 (inclusive), Eversley-way, and for The First National Housing Trust, Ltd., 10, The Boltons, South Kensington, S.W.10, for 113 houses in Overbury-crescent and 12 houses in Aldrich-crescent.

BARNES.—Flats—For erection of four flats at Tangier-road sub-station site, the T.C. has recommended the tender of Messrs. H. and G. Jackson, Ltd., 35a, High-street, Mortlake, S.W.13, at £1,999.

BELLINGHAM.—Hotel.—Messrs. Mann, Crossman and Paulin, Ltd., Whitechapel-road, E.1, have in prospect the erection of a large hotel and restaurant in Southend-lane, Bellingham, S.E., to cost about £45,000. The plans are by Mr. R. G. Muir, F.R.I.B.A., 1, Raymond-buildings, Gray's Inn, W.C.1. No contracts let.

BERMONDSEY.—Flats.—The Borough Council has recommended the revised lay-out and sketch plans for 59 flats and one shop on the St. Olave's building site, and the estimate of £40,837 of the general manager for the erection of the buildings be approved.

BERMONDSEY. — Rebuilding. — Messrs. H. V. Clogg, Ltd., 159, Hanbury-street, Whitechapel, E.1, have secured the contract for the rebuilding of the "Horns" public-house, Grange-road, S.E.1. Plans have been prepared by Messrs. F. J. Eedle and Myers, 8, Railway-approach, S.E.1.

BETHNAL GREEN.—Rebuilding.—Plans have been prepared by Messrs. Stewart and Hendry, FF.R.I.B.A., 90, Fenchurch-street, E.C.3, for the rebuilding of the "Perseverance" public-house, Pritchard's-road, E.2. The contractors are Messrs. Snelling and Rayment, 282, Mitcham-lane, S.W.16.

BRENTFORD. — Garage. — The Dome Garages, Ltd., are to erect a garage and petrol filling and service station at the corner of the Great West-road and Ealing-road. The contractors are Messrs. W. J. Drinkwater and Sons, Bedfont-lane, Feltham. The plans have been prepared by Messrs. Roper, Son and Chapman, 162, High-street, Hounslow.

BRIXTON-HILL.—Flats.—The second contract for the erection of a block of 122 flats and 10 shops in Baytree-road, Brixton-hill, S.W., has now been placed with Messrs. Pierpoint and Sons, 30-36, Brixton-hill, S.W. The plans have been prepared by Messrs. Marshall and Tweedy, FF.R.I.B.A., 96, New Cavendish-street, W.1.

BROMLEY.—Flats.—Mr. Geo. L. Russell, A.R.I.B.A., 1, Broad-street-buildings, E.C.2, is the architect for 27 flats and 10 garages in Beckenham-lane. The builders are the Aldersgate Estates, Ltd.

BROMPTON-ROAD. — Rebuilding. — The directors of Messrs. Harrods, Ltd., have placed a contract with Messrs. James Carmichael (Contractors), Ltd., 331, Trinity-road, Wandsworth, S.W., for the rebuilding of a large portion of their departmental stores in Hans-crescent, S.W. The plans have been prepared by the company's architect, Mr. J. L. Harvey, A.R.I.B.A.

CANNON-STREET. — Alterations. — H.M.O.W. have placed a contract with Killby and Gayford, Ltd., 87, Worship-street, E.C.2, for alterations to Candlewick House, E.C.

CATERHAM.—Annexe.—The Caterham and Warlingham U.D.C. are inviting tenders for an annexe to the conference hall in Harestone Valley-road.

CROYDON.—Flats.—The Housing Committee have authorised the invitation of tenders for two blocks of three-storey flats at the Sumner-road end of the Leighton-street area, comprising accommodation for 108 persons in 12 two-bedroom and 12 three-bedroom flats.

CROYDON.—Extensions.—The C.B. has passed plans for Mr. G. B. Cotton, 402, Sydenham-road, for extension to factory, at 392-400, Sydenham-road.

CROYDON.—Building.—The E.C. has recommended for acceptance tenders for a new Lady Edridge school in Clifton-road to cost £27,600, and for alterations and additions to the Selhurst Grammar school to cost £23,500.

EALING.—Messrs. Marshall and Archard, L.R.I.B.A., 3 Arundel-street, W.C.2, are the architects for proposed alterations to the Lourdes Mount Convent in Little Ealing-lane. The contract has been placed with Messrs. W. E. Silk, Ltd., 101, Myddleton-road, Bowes Park, N.22, at £1,629.

EALING.—Shops.—Mr. Thomas Braddock, Grand-buildings, Trafalgar-square, W.C.2, has prepared plans, which have been approved, for seven shops with 16 flats over, block of 12 flats and 19 garages, in Greenford-road; and nine blocks (36 flats) in Oldfield-lane.

EALING.—Store.—Messrs. W. A. Lewis and Partners, 130, Regent-street, W.1, have prepared plans for a store at 92 and 94, The Broadway, W.13, for Messrs. Marks and Spencer, Ltd.

EALING.—Houses.—Messrs. T. F. Nash Construction, Ltd., Uxbridge-road, Hayes, are to erect 58 houses at 2-32 even in Edward-road and 2-72 even and 1-11 odd West End-gardens. Plans approved.

EALING.—School, etc.—The T.C. has approved proposals for the new Selborne school, to accommodate 320 boys; new block at the St. Ann's senior girls' school; and two additional classrooms at the North Ealing school. Plans in each case are by the Borough Engineer, Mr. F. J. Forty.

EDMONTON.—Bank.—The Westminster Bank, Ltd., Lothbury, E.C., has placed a contract with Messrs. Haymills (Contractors), Ltd., Hanger-green, Ealing, W.5, for branch premises in Fore-street. The plans have been prepared by Messrs. Campbell Jones, Sons and Smithers, 9, Dowgate-hill, Cannon-street, E.C.4.

GOSWELL-ROAD. — Alterations. — H.M.O.W. have placed a contract with Messrs. F. Troy and Co., Ltd., 194, Finchley-road, N.W.3, for alterations to Nos. 338-346 for new post office stores.

HAMMERSMITH.—Building.—The B.C. has approved the proposal to provide alternative office accommodation at the generating station by extending the existing main office on the first floor and erecting an additional staircase from the main entrance hall, at £1,250. Tenders are to be invited. The Electricity Committee are to invite tenders for alterations to the powdered fuel plant house at the generating station. The scheme is estimated to cost £2,000.

HAMMERSMITH. — Drill Hall. — The tender of Messrs. C. H. Gibson, Ltd., 509, London-road, Croydon, has been accepted by the County of London Territorial Army and Air Force Association, Duke of York's Headquarters, Chelsea, S.W.3, for new headquarters and drill hall in Hammersmith-road, W.6, for the Princess Louise Kensington Regiment. The plans have been prepared by Mr. S. W. Neighbour, 26, Hart-street, W.C.1

HAMPSTEAD. — Showroom. — Mr. A. Whitaker, F.I.A.A., 16, Fords-grove, N.21, is the architect for a garage with showroom and filling station on site of 150-156, West End-lane.

...HAMPSTEAD. — Additions. — Mr. H. Courtenay Constantine, F.R.I.B.A., 9, Bentinck-street, W.1, is the architect for an addition at Messrs. Rowland Smith's garage, north-western side of Flask-walk. The contractors are Messrs. Sabey and Son (Islington), Ltd., 100, Great Russell-street, W.C.1.

HAMPSTEAD.—Flats.—Messrs. Toms and Partners, 115, Park-street, W.1, are the architects for a block of flats at 2-42 (even), Adelaide-road. No contracts placed.

HENDON.—Houses.—The Borough Surveyor has submitted to the T.C. a site plan showing suggestions for the development, in the first instance, of 10 acres of land including 3.3 acres of Renters-avenue temporary allotments and 3.8 acres of Brent Hill temporary allotments, the latter in the vicinity of Dallas-road. The scheme contemplates the provision of 60 non-parlour houses of the three-bedroom type and 60 non-parlour houses of the two-bedroom type, to cost £57,560.

HENDON. — Estate. — Mr. William F. Thorpe, F.S.I., 26, The Broadway, Mill Hill, N.W.7, is acting for clients who have purchased the Wentworth Hall estate of 22 acres for development. Lay-out plans are now being prepared.

HORNCHURCH.—Houses.—The U.D.C. has passed plans for 91 houses in Jersey-road and Conway-close and Southend-road for Mr. H. E. Bradshaw, builder, Rainham.

HORNCHURCH.—Houses.—The Council has approved plans for 62 houses in Goodwood-avenue and 126 houses in Gainsborough-road and Southend-road for Messrs. T. Blade, Ltd., of Palmer's Green.

HOUNSDITCH. — Rebuilding. — Messrs. Lewis Solomon and Son, 21, Hart-street, W.C.1, are the architects for the rebuilding Nos. 131-136 and 1, Stoney-lane. No contracts placed.

HOUNSLOW.—Shops.—Mr. J. P. Blake, A.R.I.B.A., 24a, Bath-road, Hounslow, is the architect for three shops with living accommodation at the west corner of Broadwalk, for Messrs. Goodwin and Co.

ILFORD.—Hall.—Plans have been prepared by Mr. George W. Newman, 8, Bush Hill-road, N.21, for a Methodist church hall at The Glade, Claybury Hall estate. The builders are Messrs. Jackson Bros., Norfolk-road, Ponders End.

KENNINGTON.—Rebuilding.—The Wenlock Brewery Co., Ltd., 12, Wenlock-road, Islington, N.1, has placed a contract with Messrs. A. O. Laird, Ltd., 12, Buckingham-street, W.C.2, for the rebuilding of the "Horse and Groom" public-house, Peacock-street, Kennington-lane, S.E. The architect is Mr. W. G. Ingram, F.R.I.B.A., 4, Verulam-buildings, Gray's Inn, W.C.1.

KINGSBURY. — Factory. — The Power Equipment Co., Ltd., The Hyde, Colindale, N.W.9, has acquired a site in Kingsbury-road for a factory and offices. Plans are by Messrs. P. Chase Gardener and Co., 295, High-street, Hounslow.

LONDON.—Building.—The L.C.C. has accepted the tender of Messrs. Cropley Bros., Ltd., Church-road, Epsom, at £49,615 10s. for rebuilding of the Battersea central schools on the Culvert-road site. For erection of block 9 of dwellings on the Browning estate, Orb-street area, Southwark, the Council has accepted the tender of Messrs. A. T. Rowley (London), Ltd., Cambridge-works, Lordship-lane, Tottenham, at £11,472. The Housing and Public Health Committee have recommended £32,000 for the acquisition and clearance of two slum areas about two and a half acres in extent in Barlow-street, Southwark. The scheme will involve the rehousing, at an estimated cost of about £57,000, of 475 working-class persons. Parks Committee has recommended the Council to approve £6,500 in respect of the construction of a children's lido at Geraldine Mary Harmsworth Park, Southwark; £10,725 is to be spent on rebuilding of Albion-street L.C.C. school, Rotherhithe, and £2,865 for erection at the Northern outfall works of a building to be used as workshops, flushers' messrooms and washhouses, etc. The Housing and Public Health Committee propose to arrange for the extension, at £14,000, of one of the blocks of flats, known as Blythe House, on the Council's Kennington Park estate, Lambeth. The extension will comprise ten flats on the upper floors with accommodation for about sixty persons, and four shops on the ground floor. The present contractors, the Unit Construction Co., Ltd., are to erect blocks 10, 13 (remainder) and 14 (part) of dwellings, on the site.

MILL HILL.—Flats.—Mr. W. F. Gough, Wise-lane, Mill Hill, N.W.7, proposes to build 48 flats, for which plans have been prepared by Messrs. Housales, Ltd., 20, Watford-way, Hendon, N.W.4. The work will be carried out by direct labour.

NORTH CHEAM. — Alterations. — And additions, are to be made to the "Woodstock" public-house, London-road, for the Royal Brewery, Brentford, Ltd. The contractors are Messrs. Fassnidge, Son and Norris, Ltd., High-street, Uxbridge. The architects are Messrs. Nowell Parr and Son, 33, Sussex-place, South Kensington, S.W.7.

NORTHOLT.—Houses.—Messrs. C. W. and W. Harding, Ltd., The Heights, Northolt Park, propose to erect 300 houses on the Medlar Farm estate. Lay-out plans have been approved by the Ealing T.C.

NORTHWOOD.—Alterations.—Are to be made to the Council offices in Oaklands Gate, Northwood, for the U.D.C. Tenders are now being invited.

OLD KENT-ROAD. — Rebuilding. — Messrs. L. A. Culliford and Partners, 47, Essex-street, W.C.2, are the architects for the rebuilding of 333, Old Kent-road. No contracts placed.

OXFORD-STREET.—EXTENSIONS.—The St. Marylebone B.C. has agreed upon the carrying out of extensive roadworks in connection with the proposed rebuilding of the property in Wigmore-street, Duke-street, Orchard-street and Somerset-street, W.1, as an extension to the departmental stores of Messrs. Selfridge and Co., Ltd. The company's architect is Mr. Albert D. Millar, 131, Wigmore-street, W.1. No contracts placed.

OXTED. — EXTENSION. — The Board of Governors of the Oxted and Limpsfield Hospital have accepted the tender of Messrs. Killby and Gayford, Ltd., 87, Worship-street, E.C.2, for the extension of their premises. Plans have been prepared by Messrs. J. Douglass Mathews and Son, FF.R.I.B.A., 3, Paul's Bakehouse-court, E.C.4.

PADDINGTON. — REBUILDING. — Messrs. Petch and Fermaud, 8, Buckingham Palace-road, S.W.1, are the architects for the rebuilding of "The Royal Standard" public-house, 9, Sale-street. No contracts placed.

PADDINGTON.—PETROL STATION.—Mr. J. Morand, 26, Brook-Mews North, W.2, is erecting a petroleum filling station at 28, Brook Mews North, and carrying out other alterations at Nos. 22-27 (inclusive). The work is being done by direct labour.

PECKHAM.—ALTERATIONS.—And additions, are to be made to the showrooms in Rye-lane, S.E., of Messrs. Kingswood and Marle, Ltd. The contractors are Messrs. E. Pollard and Co., Ltd., 159, St. John-street, Clerkenwell, E.C.1. The architect is Mr. J. L. Cohen, A.R.I.B.A., 100, Shoot-up-hill, Cricklewood, N.W.2.

POTTERS BAR.—MUNICIPAL BUILDINGS.—Messrs. Marshall and Tweedy, FF.R.I.B.A., 100, New Cavendish-street, W.1, have been appointed architects for a new civic centre including municipal offices, fire station, ambulance station and mortuary, for the U.D.C., and for a new cottage hospital for the Hospital Committee. The quantity surveyors are Messrs. K. G. Higgins and Partners, Eagle House, Jermyn-street, S.W.1.

ST. JOHN'S WOOD. — ADDITIONS.—The Marylebone Cricket Club proposes a block of buildings, including shops, hotel, practice-rooms, etc., at the corner of St. John's Wood-road and Grove End-road, N.W. The architects are Sir Herbert Baker, R.A., and Mr. A. T. Scott, F.R.I.B.A., Romney House, Marsham-street, S.W.1. No contracts placed.

ST. JOHN'S WOOD.—FLATS.—Plans have been prepared by Mr. E. C. Freud, 32, St. John's Wood-terrace, N.W.8, for the rebuilding of premises at 5-9, Circus-road, by a shop and eight flats. The quantity surveyors are Messrs. Myers and Thompson, 13, Gray's Inn-square, W.C.1. No contracts let.

SOUTHFIELDS.—FLATS.—Plans have been prepared by Mr. Peter H. Caspari, 102, Baker-street, W.1, for a block of high-class flats at Kimber-road, S.W. The contractors are Messrs. Bridge, Walker, Ltd., 91, Effra-road, Brixton, S.W.2.

STOCKWELL.—PREMISES.—Consisting of workshops, store and offices, are proposed to be erected at 83, Landor-road, S.W. The architects are Messrs. H. Wakeford and Sons, 184, Clapham-road, S.W.9.

STRATFORD.—FACTORY. — Messrs. Poth, Hille and Co., Ltd., Lloyds-avenue, E.C.3, have decided to build a factory at Mill River Wharf, Hunt's-lane, E.15. Plans have been prepared by Mr. Alfred H. Durnford, L.R.I.B.A., 418-42, Strand, W.C.2.

SUTTON.—EXTENSION.—The Governors of the Sutton and Cheam Hospital, Banstead-road, have approved plans for a new nurses' hostel and staff quarters. The architects are Messrs. William A. Pite, Son and Fairweather, 12, Carteret-street, S.W.1, and the quantities are by Mr. A. J. Willis, F.S.I., 20, Buckingham-gate, S.W.1, while the building contract has been placed with Messrs. Geo. Parker and Sons, Ltd., 124, Sumner-road, Peckham, S.E.15, at £10,234.

TEDDINGTON.—EXTENSIONS.—Are to be made to the laboratories for H.M.O.W. The builders are Messrs. Marchant, Hirst and Co., Highgate-road, Kentish Town, N.W.

UPMINSTER. — MAISONETTES. — Mr. R. Seifert, F.R.I.B.A., 114, City-road, E.C.1, is the architect for 72 maisonettes to be erected in Hornminster Glen.

WALTHAMSTOW.—ADDITIONS.—Mr. John P. Blake, 24, Bath-road, Hounslow, is the architect for alterations and additions to the Spruce-hill Congregational Church in Brookscroft-road. No contracts placed.

WALTON.—HOUSES.—The M.W.B. recommend erection of working-class houses in the urban district of Walton in connection with the proposed Walton reservoir.

WANDSWORTH. — ALTERATIONS. — And additions, are to be made to premises in East-hill, S.W.18, to provide branch offices and showrooms for the County of London Electricity Supply Co., Ltd. The contractors are Messrs. T. W. Heath (Chelsea), Ltd., 16, Christchurch-road, S.W.3. The architects are Messrs. William and Edward Hunt, FF.R.I.B.A., Brettenham House, Lancaster-place, W.C.2. The quantity surveyors are Messrs. G. Silvester and Sons, 2, Norfolk-street, W.C.2.

WANDSWORTH.—NURSERY.—For erection of the proposed new Wandsworth day nursery in Fairfield-street, adjoining the Municipal Buildings, the B.C. recommend necessary arrangements for the clearing of the site, the preparation of quantities, etc., and to invite tenders. Mr. E. A. Hunt, F.R.I.B.A., is the architect, and Messrs. L. A. Francis and Sons the quantity surveyors, and Mr. W. MacIntyre as consultant in connection with the heating, ventilation, electrical and other engineering services.

WANDSWORTH.—FLATS.—For erection of 90 flats on the Fairfield-street site from plans prepared by the joint architects, Mr. Basil Hughes, F.R.I.B.A., F.S.I., and Mr. Edward A. Hunt, F.R.I.B.A., the B.C. has recommended the revised tender of Messrs. Davis (Contractors), Ltd., 312, Kilburn High-road, N.W.6, amounting to £60,169.

WATFORD.—EXTENSIONS.—The Sun Engraving Co., Ltd., is to considerably enlarge its works in Whippenhall-road, and has placed a contract with Messrs. Concrete Structures, Ltd., Horseferry House, Horseferry-road, S.W.1. The plans have been prepared by Messrs. Stanley Peach and Partners, 28, Eccleston-square, S.W.1.

WIMBLEDON.—EXTENSION.—Plans have been prepared for the extension of the dance hall at the Wimbledon Hill Hotel, High-street, S.W. The architects are Messrs. R. J. and J. S. Thomson, F. & A.R.I.B.A., 49, Hill-road, Wimbledon, S.W.18. No contracts placed.

WOBURN-PLACE. — PREMISES. — A new company called the Woburn Place Investment, Ltd., has been formed with offices at 93, Park-lane, W.1, to acquire land at 19 to 29, Woburn-place, W.C.1, and to erect buildings.

WOOLWICH. — LABORATORY. — H.M. War Office has placed a contract with Messrs. John Mowlem and Co., Ltd., 91, Ebury Bridge-road, S.W.1, for a laboratory at the Royal Arsenal.

PUBLIC WORKS

CHICHESTER.—A new Court House is to be built at Chichester at an estimated cost of £27,570. Mr. C. G. Stillman, F.R.I.B.A., is the County Architect.

GREAT BRITAIN.—Among contracts advertised in this issue by local authorities as being open to tender are: Canterbury T.C.—48 houses; Northamptonshire C.C.—extensions to School of Boot and Shoe Manufacture, Thorngate-street, Kettering; Dorset C.C.—Council chamber, court and offices in Colliton-Park, Dorchester; Southampton C.C.—school at Basingstoke; Burnley T.C.—school at Towneley; Durham C.C.—school at Broom Cottages, near Ferryhill.

GT. BRITAIN.—Following are notes on some loans sanctioned by the Minister of Health during the week ended March 5: Baldock U.D.C.—£26,959 for erection of 71 houses on Norton-road site. Berkshire C.C.—£13,612 for purchase and adaptation of Bloomfield Hatch Farm for small holdings. Birmingham C.C.—£35,605 for erection of permanent premises for Ridpool Council School. Bolton C.B.C.—£26,606 for furnishing Town Hall, Offices, Art Gallery, Museum and Public Library. Cardiff C.C.—£76,752 for construction of underground car park. Colne B.C.—£14,986 for erection of new market hall. Coventry C.C.—£10,110 for purposes of Baginton aerodrome. Dover B.C.—£12,650 for purchase of site for new police station. Lancaster R.D.C.—£30,966 for provision of piped water supply from Manchester Corporation's Thirlmere aqueduct for the Parishes of Priest Hutton, Silverdale, Yealand Conyers and Yealand Redmayne. Lewes B.C.—£62,100 for erection of 172 houses. Middlesex C.C.—£55,813 for erection of Secondary School for boys at Gunnersbury, Acton. Newcastle-under-Lyme B.C.—£36,415 for purchase of properties for benefit of borough. Newton-in-Makerfield U.D.C.—£38,924 for erection of 98 houses on Crow-lane site. Richmond (Surrey) B.C.—£49,550 for erection of 112 houses at Ham. Seaham U.D.C.—£75,150 for erection of 204 houses on West Park Housing Estate. Stoke-on-Trent C.B.C.—£11,900 for purchase of land for the extension of the Meir aerodrome. Swansea C.B.C.—£200,000 for advances under Small Dwellings Acquisition Acts, 1899-1923. West Penwith R.D.C.—£25,014 for erection of 66 houses at Hayle and five houses at Gwithian.

Following are notes on some loans sanctioned by the Minister of Health during the week ended March 12: Abingdon R.D.C.—£71,650 for purposes of sewerage for parishes of Cumnor, Kennington, North Hinksey, and South Hinksey; Blackburn C.B.C.—£23,100 for contribution towards cost of new Voluntary Public Elem. School (Shakespeare Mill Senior Girls' C. of E. Sch.); Burton-upon-Trent C.B.C.—£37,272 for extension of Town Hall; Carlisle C.B.C.—£99,253 for erection of 286 houses on Petteril Bank Estate; Exeter C.C.—£14,622 for purchase of property for street improvements; Farnworth U.D.C.—£28,840 for erection of 86 houses on Worsley-road site; Hertfordshire C.C.—£54,479 for erection of East Barnet, Russell-lane Senr. Council School; Kent C.C. Croydon C.B.C.—£60,329 (Kent C.C.) and £7,700 (Croydon C.B.C.) towards cost of acquiring (a) Preston Hall Farm, Eynsford, (b) High Elms Estate, Orpington, and (c) Wickham Court Estate, West Wickham (1,585 acres in all) to form part of Green Belt; Leeds C.C.—£23,604 for erection and equipment of branch library at Cross Gates; Middlesex C.C.—£54,453 for erection of Southall-Norwood Greenford Secondary School; £34,800 for widening and improvement of High-street, Southall; Northamptonshire C.C.—£32,670 for erection of County Offices in Guildhall-road, Northampton; Normanton U.D.C.—£21,531 for erection of 98 houses on Dodsworth-hill site; Preston C.B.C.—£105,000 for erection of 298 houses at Faringdon Park and Thirlmere-road; Seaton Valley U.D.C.—£69,000 for erection of 100 houses at Packworth Station site; Sheppey R.D.C.—£12,582 for sewerage and sewage disposal for parish of Minster; Smethwick C.B.C.—£34,455 for erection of 64 flats at Thimblemill-road site; Southend-on-Sea C.B.C.—£20,244 for construction of second carriageway on the London-Southend road from Kent Elms Corner to the boundary of county borough; Stoke C.B.C.—£80,000 and £487,654 for erection of 1,158 houses and works in connection therewith; Thingoe R.D.C.—£22,980 for erection of 56 houses; Wakefield C.B.C.—£86,400 for erection of 230 houses and works in connection therewith on Flanshaw Estate; Wednesbury B.C.—£69,485 for erection of 192 houses on Old Park-road site.

NEW CINEMAS

ASHFORD (MIDDLESEX).—M.G.Y., Ltd., 80, Coleman-street, E.C.2, are to erect a cinema to seat 1,114, at the corner of Church-road and Parkland-grove.

BEESTON (NOTTS). — The Majestic Cinemas, Ltd., propose the erection of a cinema at the junction of Queen's-street and Station-road. Plans have been prepared by Mr. E. S. Roberts, Lombard House, Great Charles-street, Birmingham, 3.

HENDON.—Plans have been approved for the erection of the "Odeon" cinema at the junction of Church-road and Parson-street. The architect is Mr. H. W. Weedon, A.R.I.B.A., 84, Colmore-row, Birmingham, and 7, Park-lane, W.1.

MAIDENHEAD. — Mr. C. E. Wilford, A.R.I.B.A., 109, Jermyn-street, S.W.1, and 10-12, Market-street, Leicester, is the architect for a cinema to be erected in Market-street, for Mr. L. Morris.

MANCHESTER.—The Moston Brick and Building Co., Ltd., Kenyon-lane, Moston, have secured the contract for a cinema, to be erected in Church-street, Newton Heath, for the Magnet Cinema Co., Ltd., 13, St. Anns-street. The architect is Mr. H. A. Dargie, Transport House, The Crescent, Salford.

NORTHUMBERLAND (WIDEOPEN). — The contract for the erection of a cinema has been placed with Mr. E. Thompson, 12, Grey-street, Newcastle-on-Tyne. The architects are Messrs. Marshall, Tweedy and Bourn, Grainger House, Blackett-street, Newcastle.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender, unless stated to the contrary. A dagger (†) denotes closing date for applications for particulars; other dates are those for the submission of tenders; the name and address at the end refer to the person from whom particulars may be obtained. Abbreviations: (A.) for A.R.I.B.A.; B. of E. for Board of Education; B.C. for Borough Council; B.E. for Borough Engineer; B.S. for Borough Surveyor C. for Clerk; C.B. for County Borough; C.C. for County Council; C.E. for County Engineer; C.S. for County Surveyor; D.S. for District Surveyor; E. for Engineer; E.C. for Education Committee; (F.) for F.R.I.B.A.; (L.) for L.R.I.B.A.; M.W.B. for Metropolitan Water Board; M.H. for Ministry of Health; M.T. for Ministry of Transport; P.C. for Parish Council; R.D.C. for Rural District Council; S. for Surveyor; T.C for Town Clerk and Town Council; and U.D.C. for Urban District Council.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, &c.

MARCH 28.

*** Clown R.D.C.**—Alteration to sewage outfall works at Whitwell. J. Haslam & Sons, Rytonchams., Worksop. Dep. £3 3s.

*** Isle of Ely C.C.**—Cottage in Sutton-rd. and pair of semi-detached cottages in Boyce's-ln., Wisbech. County Architect, County Hall, March. Dep. £1, each contract.

*** Middlesex C.C.**—Heating and hot-water service installation in connection with enlargement of Stationers' Company's School, Mayfield-rd., Hornsey, N.8. Secretary to E.C., "Y.2," 10, Great George-st., S.W.1. Dep. £2 2s.

MARCH 29.

*** Bishop Auckland.**—Demolition and removal of "Ormesby House," Cockton Hill. E. H. Taylor, Bishop Auckland Cottage Hospital Rebuilding Committee, 9, Durham-st.

*** Lancashire C.C.**—Extensions to Technical College, Leigh, and relief office at Huyton, near Liverpool. County Architect, County Offices, Preston. Dep. £2.

Lancaster T.C.—Pavilion at Highfield bowling greens. Frederick Hill, City E. and S. Dep. £1 1s.

MARCH 30.

Blackpool T.C.—Artificial stone at school, Marton. B.E.

Edinburgh T.C.—Sub-station at Falcon-rd. City Architect.

Haydock U.D.C.—124 houses on Church-rd. site. R. Main, S. Dep. £2 2s.

Humberston (Lincs).—Telephone exchange, for H.M.O.W. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Kirkburton U.D.C.—Convenience at Dean Quarry. G. W. Smith, C., 23, John William-st., Huddersfield.

*** Merton and Morden U.D.C.**—Tennis and bowls shelter, Sir Joseph Wood Memorial Playing Field. E. & S. Dep. £1.

Sellindge, Kent.—Telephone exchange, for H.M.O.W. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Tewkesbury.—Telephone exchange, for H.M.O.W. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Thame U.D.C.—32 houses on Broadwaters estate. W. E. Wood, E. and S. Dep. £2 2s.

†Troon T.C.—221 houses at Muirhead housing scheme. T. C. Stewart, Quantity S., Clydesdale Bank-chambs., Kilmarnock.

MARCH 31.

Aberdeen C.C.—Additions to Ellon secondary school. E. L. Williamson, 154, Union-st.

Bentley (nr. Farnham).—Telephone exchange, for H.M.O.W. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Birmingham T.C.—Alterations, etc., to sanitary block, etc., female 6 ward, ground floor and female 3 ward, first and second floors, at Winson Green Mental Hospital, Lodge-rd. F. H. C. Wiltshire, T.C. Dep. £3 3s.

†Bristol T.C.—Electric wiring, etc., at Homes for Aged and Infirm, Fishponds. Thos. S. Lamb, Director of Public Assistance, St. Peter's Hospital. Dep. £2 2s.

*** Cambridge E.C.**—High School for Girls. County Architect. Dep. £2 2s.

*** Chertsey U.D.C.**—Alterations to Council Offices. C. Dep. £1 1s.

Huntingdon T.C.—6 houses in Ambury Hill Field, and provisional tenders for further 2 houses. B.S. Dep. £1 1s.

Islington.—Alterations to post office stores, Studd-st., for H.M.O.W. Room 65D, Third Floor, Office of Works, S.W.1. Dep. £1.

Leeswood Industrial Co-operative Society, Ltd.—Shop at Tryddyn, nr. Mold. Secretary, Queen-st. Dep. £2.

Nottingham T.C.—Extensions to offices, Parliament-st. R. M. Finch, City E. Dep. £2.

St. Faith's and Aylsham R.D.C.—Painting of houses. E. R. Larner, S.

Sheffield.—Beauchief telephone exchange, for H.M.O.W. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Southampton T.C.—Repairs and decorations to houses. Housing Manager.

APRIL 1.

Breconshire C.C.—School at Crickhowell, and electric light and heating installations. H. C. W. Strickland (F.), county architect, Watton Offices, Brecon. Dep. £2 2s.

Brighton T.C.—Electric light and powers installation in connection with 3 villa homes, pump house, transformer room, etc., Laughton Lodge Colony. E. Wallis Long (L.), 6, Old Steine. Dep. £1 1s.

Croydon T.C.—24 flats. B.E. Dep. £2 2s.

Dun Laoghaire.—Telephone exchange, for Commissioners of Public Works. G. P. Fagan, Office of Public Works, Dublin. Dep. £1.

Edinburgh T.C.—Installation of kitchen equipment, also heating and ventilating plant in kitchen block at Western General Hospital, also hall at Gifford Park. City Architect, City-chams.

Eyemouth T.C.—Wrought-iron fencing at 28 houses, Glebe site. George R. Wood, T.C. Dep. 10s. 6d.

Grimsby.—Alterations to head post office, for H.M.O.W. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

*** Leyton T.C.**—Window cleaning. J. H. Jacques (F.), 61, West Ham-ln., Stratford, E.15. Dep. £1.

Mexborough.—Post office and telephone exchange, for H.M.O.W. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Mid-Wales Counties Mental Hospital.—Gardener's cottage on hospital estate. A. J. Astbury, clerk, Mental Hospital, Talgarth, Brecon.

Southampton C.C.—Extensions to casual block at Basingstoke Public Assistance Institution. A. L. Roberts, County Architect, Winchester. Dep. £1 1s.

Spilsby R.D.C.—Fire engine station. S. Dep. £1 1s.

APRIL 2.

Chislehurst and Sidcup U.D.C.—27 houses in Victoria-rd., Chislehurst. Ley, Colbeck & Ptnrs., 214, Bishopsgate, E.C.2. Dep. £2 2s.

East Ham T.C.—77 houses at Bonny Downs, E.6. A. T. Bridgewater, B.E. Dep. £2 2s.

Ely R.D.C.—6 houses in Witcham. F. W. Green, C., R.C. Offices. Dep. £2.

Essex C.C.—Reconstruction of Michaelstow Hall, Covercourt, into Convalescent Home. J. Stuart (A.). Dep. £2 2s.

Falmouth T.C.—House and shop at Beacon housing estate. H. E. Tresidder, B.S. Dep. £1 1s.

Godalming T.C.—Converting portion of Municipal Buildings into cloakrooms and conveniences. B.S. Dep. £1 1s.

Gwyrfai R.D.C.—Conveniences at Penygroes; also electric light installation for Llwyn Celyn, Bontnewydd. D. H. Roberts, E. and S., 22, Castle-sq., Caernarvon.

Hertfordshire C.C.—Buntingford Senior C. School. C.

Kesteven C.C.—Separation wards, etc., to infirm block, Grantham poor law institution. C. B. Metcalfe (F.), County Offices, Sleaford.

Lexden and Winstree R.D.C.—Houses. Baker & Burton, architects, 3, Church-st., Colchester.

Norwich T.C.—Works adjacent to Hellesdon Hospital. City Architect. Dep. £2 2s.

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Pontypool U.D.C.—28 dwelling-houses, roads and sewers at Penygarn. Arthur Langley, architect, Midland Bank-chams.

Southwick U.D.C.—20 houses and 4 bungalows, Mile Oak-rd. site. G. W. Warr, S. Dep. £3 3s.

*** Wakefield T.C.**—Works at Snapethorpe School. Samuel Hutton, city architect, Room 30, Town Hall.

Walsall T.C.—Extensions to motor bus depot, Birchhills. M. E. Habershon, B.E. and S. Dep. £3 3s.

Wayland R.D.C.—4 houses at Carbrooke, 4, at Harling, 10, at North Lopham, and 6, at Watton. S.

West Riding C.C.—Works, at Broad-ln. school, South Elmsall. C. L. Crossley, divisional clerk, 8, St. John's North, Wakefield.

West Riding C.C.—Domestic hot-water installation at Horsforth Featherbank School. C. Anderson, divisional clerk, West Riding Education Office, Otley.

APRIL 4.

Aberdeen T.C.—Extensions to conveniences, Market Stance. T. F. Henderson, C.E.

Aley R.D.C.—Installation of hot-water circulating system in 32 houses. E. O. Evans, S., Diddanfa, St. Asaph.

Bexhill T.C.—Painting to De La Warr Pavilion and colonnade. B.E. and S.

*** Dunstable, Beds.**—Painting at Ashton Grammar School. C., 79, High-st. North. Dep. £1 1s.

Exmouth U.D.C.—Central depot, stores and foreman's cottage. E. and S. Dep. £2 2s.

Feltham U.D.C.—Swimming bath. H. W. A. Carter, E. and S. Dep. £2 2s.

Hexham R.D.C.—Six houses at Humshaugh. C.

Lowestoft T.C.—Alterations and additions to Dell-rd. school. S. W. Mobbs (A.). B.S. Dep. £2 2s.

Meriden R.D.C.—3 pairs of semi-detached dwelling-houses. H. Pickering, E. & S.

Newcastle and Gateshead Bridge Committee.—Cleansing and painting of steel, iron and woodwork of Tyne Bridge. City E.

North Riding E.C.—Extension to school, Dormanstown, also infants' school adjoining. F. Barraclough, secretary, County Hall, Northallerton.

*** Northamptonshire C.C.**—Demolition of 5 cottages; alterations and additions to County School of Boot and Shoe Manufacture, Thorngate-st., Kettering. County architect.

Preston T.C.—Cubicle block at Isolation Hospital. B.E. Dep. £1.

*** Rotherham T.C.**—Junior School and Nursery School, Coleridge-rd. Vincent Turner, B.E. Dep. £2 2s.

*** Rotherham T.C.**—Heating and Hot-water Installation. Vincent Turner, B.E. Dep. £2 2s.

Slough U.D.C.—Timber framed bungalow. E. and S.

Spenborough U.D.C.—20 houses at Birkenshaw. A. Rothera, architect, Church-st., Cleckheaton. Dep. £2 2s.

Wembley T.C.—Central heating at administration block, Harrow-rd. B. Treasurer. Dep. £1 1s.

Wembley T.C.—R.C. frame to administration block and construction of underground rain-water tank at Harrow-rd. B. Treasurer. Dep. £1 1s.

Wembley T.C.—16 firemen's houses, roads, etc., Harrow-rd. B. Treasurer. Dep. £3 3s.

Wembley T.C.—Administration block, etc., Harrow-rd. B. Treasurer. Dep. £5 5s.

West Riding C.C.—Welfare clinic at Church-rd., Denaby Main, nr. Conisborough. West Riding Architect, County Hall, Wakefield.

West Riding C.C.—Works at various schools. Education Officer, County Hall, Wakefield.

West Riding Mental Hospitals Board.—Painting of buildings at Menston Mental Hospital. W. E. H. Burton, architect and eng., Wakefield.

*** Widnes T.C.**—School. B.E. and S., 28, Widnes rd. Dep £2 2s.

APRIL 5.

*** Bedford T.C.**—66 houses and barns, London-rd., and 20 houses and barns, Goldington housing schemes. B.E. and S., Newnham House, Horne-ln. Dep. £5.

Dun Laoghaire.—Extension at St. Michael's Hospital. T. C. Whelan, Quantity S., National Bank-chambs., 1, Cavendish-row, Dublin. Dep. £10 10s.

Glasgow.—Alterations and additions at Telephone Exchange and Garage, Drymen-rd., Bearsden, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh, 2. Dep. £1.

*** Gloucester E.C.**—Technical college. W. H. Harland, Education Officer. Dep. £5 5s.

†Hertford.—Extensions to Isolation Hospital, Gallows Hill, for East Herts Joint Hospital Board. C., 6, Baldock-st., Ware. Dep. £5 5s.

Rugeley U.D.C.—92 houses on Brereton-rd. housing site. W. E. Rogers, S. Dep. £2 2s.

APRIL 6.

*** Beaminster R.D.C.**—6 houses, etc., on Pattle site. C. Dep. £1 1s.

Bishop Auckland.—48 houses at Ashcroft-gdns., for N.E. Housing Assoc., Ltd. Crawford & Robson, architects, Market-chmbs. Dep. £3 3s.

Canterbury T.C.—48 houses at Reed-ave. City E. & S. Dep. £2 2s.

Esh Village, Co. Durham.—46 houses, N.E. Housing Assoc., Ltd. E. Simpkin, E. & S., Lanchester. Dep. £3 3s.

Guildford R.D.C.—Cottages and roads and sewers at Shere, Normandy and Seale. J. W. Wilton, E. and S. Dep. £2 2s.

Liverpool.—Telephone exchange, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Manchester.—Draining, kerbing, flagging and paving roads on Collyhurst redevelopment area. City E. Dep. £2 2s.

Peeblesshire C.C.—12 houses at West Linton. Dick Peddie Todd & Jamieson, 8, Albyn-pl., Edinburgh, 2. Dep. £1 1s.

Shrewsbury T.C.—Converting vaults into shops on Bellstone frontage of General Market. A. W. Ward, B.S.

Southend-on-Sea T.C.—Boundary wall to Nazareth House. B.E. and S. Dep. £2.

APRIL 7.

Bradford.—Alterations at County Court, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

***Caterham and Warlingham U.D.C.**—Annexe to Conference Hall. S. Dep. £2 2s.

Inveramsay Junction.—Telephone repeater station, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh. Dep. £1.

***Manchester E.C.**—Additions to Mobberley boys' school, Knolls Green, Knutsford. S. Dep. £2 2s.

Manchester T.C.—Extension of College of Technology, Sackville-st. Director of Education, Deansgate. Dep. £5 5s.

Sunderland T.C.—Isolation block at Infectious Diseases Hospital, Hylton-rd. B.E. Dep. £2 2s.

Sunderland.—136 flats at Hardley-st., for N.E. Housing Assoc., Ltd. J. E. Lewis, B.E. & S. Dep. £3 3s.

Sunderland T.C.—Pavilion, at Margaret Thompson Park, B.E. Dep. £2 2s.

Uckfield R.D.C.—Dwellings at Hadlow Down and Fletching. T. Burdett, S., Crowborough, Dep. £2 2s.

Uckfield R.D.C.—Convenience in Crowborough. T. Burdett, S., Council Offices, Beacon-rd., Crowborough.

APRIL 8.

***Burton-upon-Trent T.C.**—Additions at Stapenhill Mission Room School, Short-st. Director of Education. Dep. £1 1s.

Goring-by-Sea. — Telephone exchange, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Meltham U.D.C.—15 houses at Broadlands. Lunn, Heppenstall and Lunn, architects, Milnsbridge, Huddersfield. Dep. £2.

Newent (Glos.).—18 houses, for Land Settlement Assoc., Ltd. Secretary, Broadway-bldgs., Westminster, S.W.1. Dep. £2 2s.

Nuneaton.—Telephone exchange, for H.M.O.W. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Ripponden (nr. Halifax).—Telephone exchange, for H.M.O.W. Room 65D, Third Floor, Office of Works, London, S.W.1. Dep. £1.

Wellington (Somerset) U.D.C.—28 houses at Ball Meadow, Rockwell Green; and 8 flats at Ball Meadow, Rockwell Green. E. T. Howard, 67, High-st.

APRIL 9.

Blackhall (Co. Durham).—10 houses at Hesleden, for N.E. Housing Assoc., Ltd. Hetherington & Wilson, architects, County-chams., 52, Westgate-rd., Newcastle-upon-Tyne, 1. Dep. £3 3s.

Essex C.C.—Agricultural College at Writtle, nr. Chelmsford. J. Stuart (F.), Chelmsford. Dep. £3 3s.

Hastings T.C.—Flats. B. and Water E. Dep. £2 2s.

Hemel Hempstead.—School caretaker's house. A. Murray-Smith. Dep. £2 2s.

Middleton T.C.—148 houses and 26 bungalows, on Moorclose housing site, and 50 houses, Walker-st., Rhodes. J. Pollard (L.), Dep. £2 2s. each contract.

Pocklington R.D.C.—Road and 20 houses in Market Weighton. A. J. Oliver, C., Council Offices, Grove House. Dep. £2 2s.

APRIL 11.

Belford R.D.C. — Convenience at Beadnell. Hetherington & Wilson, architects, 27, Bondgate Without, Alnwick.

Burry Port U.D.C.—20 houses at Silver-terr. D. B. Morris, C. Dep. £3 3s.

Chester T.C.—Demolition of 6 houses and 1 shop. Charles Greenwood, City E. and S. Dep. £1 1s.

Leeds T.C.—Bakehouse, Sandfordhouse estate; 4 houses and shops and 4 garages, Belle Isle estate; 22 flats, Potternewton estate; and 16 (A2) houses and 24 cottage flats, Potternewton estate. R. A. H. Livett (A.). Dep. £2 each.

North Walsham U.D.C.—Houses and bungalows. W. Morris, architect, Bacton-rd. Dep. £2 2s.

Norwich T.C.—46 houses at Earlham Green-ln. City Architect. Dep. £2.

***Salford T.C.**—Broughton Senior School. Director of Education. Dep. £1 1s.

APRIL 12.

Canterbury T.C.—Demolition of Norman Castle Hotel, Castle-st. H. M. Enderby, C.E.

***Southampton C.C.**—Boys' School at Basingstoke. A. L. Roberts, County Architect, Winchester. Dep. £1 1s.

APRIL 13.

***Burnley T.C.**—School at Towneley, and additions to Burnley Wood Council School. B.E. & S.

Doncaster and Mexborough Joint Hospital Board.—Extensions to isolation hospital, Crookhill-rd., Conisbrough. Walker & Thompson (FF.), architects, 7b, Hall Gate, Doncaster.

Dublin.—Transit shed at North Quay extension, for Port and Docks Board., East Wall, C.10. Dep. £5.

Durham C.C.—Painting of county police stations and houses. C.S., 20, Old Elvet, Durham.

Freebridge Lynn R.D.C.—2 pairs of houses between Church-rd. and Narborough-rd., Pentney. G. W. Little, St. James' Clubhouse Bldgs., King's Lynn.

***Widnes T.C.**—80 houses, Halebank housing estate. B.E. and S. Dep. £2 2s.

APRIL 14.

***Braintree and Bocking U.D.C.**—70 houses and 12 bungalows, Panfield-ln. E. Dep. £2 2s.

***Dorset C.C.**—County Buildings, Dorchester. C. P. Brutton, C. Dep. £10 10s.

***Southport T.C.**—Painting at Transport Depot, Canning-rd. B.E. Dep. £1 1s.

Shelley U.D.C.—5 stone houses, nr. Bank-rd. Simpson & Moxon (F.), Southgate-chams., Wakefield.

Wetherby R.D.C.—22 houses. Pennington, Hustler and Taylor, architects, Ropergate, Pontefract. Dep. £1 1s.

APRIL 15.

Berkhamsted R.D.C.—1 pair of cottages at Little Potten End and 1 pair at Little Gaddesden. J. Oakes, S. Dep. £2 2s.

APRIL 18.

Durham C.C.—Blackhall Colliery council school. F. Willey (F.), 34, Old Elvet.

***Durham C.C.**—School at Broom Cottages, near Ferryhill; alterations to East Stanley C. School; Mining and Technical Institute, Paradise-st., Easington Colliery. F. Willey (F.), 34, Old Elvet.

APRIL 20.

***Oldham T.C.**—Electric light installation. B.E. & S., 75, Union-st. Dep. £1 1s.

... APRIL 25.

***Bromyard U.D.C.**—28 houses, Ballhurst Estate, Milvern-ln. Herbert Skyrme (L.), 138, Widemarsh-st., Hereford. Dep. £2 2s.

MAY 7.

***Manchester T.C.**—Extension of The College of Technology, Sackville-st. Director of Education. Dep. £5 5s.

NO DATE.

Southam R.D.C.—Houses at Fenny Compton and Northend. Quick & Lee, architects, 11, Waterloo-pl., Leamington Spa. Dep. £1 1s.

MATERIALS, &c.

The materials for which tenders are invited normally include one or several of the following :—asphalt, bricks, brooms, building lime, cast-iron pipes, cement, concrete, kerbs, etc., concrete tubes, drain pipes, glazed stoneware pipes, granite chippings, granite kerbs, gravel, gulleys, lime, manhole covers, painters' materials, plumbers' materials, road stone, slates, stoneware pipes, sand, stone, tar, tarslag and bituminous macadam, timber, and whinstone screenings. Readers should obtain full particulars by personal inquiry.

MARCH 30.

Blackpool T.C.—B.E.
Normaton U.D.C.—S.
Seaford U.D.C.—S.
Stoke-on-Trent T.C.—Furniture, soft furnishings and gymnasium fittings. Chief Architect, City Architectural Dept., Kingsway. Dep. £1.

MARCH 31.

Bedworth U.D.C.—E. and S.
Caernarvonshire C.C.—C.S., County offices, Caernarvon.
Cardiganshire C.C.—C.S.
Haltemprice U.D.C.—E. and S.
Newcastle-upon-Tyne.—T.C.

APRIL 1.

Chatteris U.D.C.—C.
Christchurch T.C.—B. E. and S.
Dunstable T.C.—B. E. and S.
Falmouth T.C.—T.C.

APRIL 2.

Blaydon U.D.C.—S.
Eton U.D.C.—S.
Haslemere U.D.C.—S.
Hoylake U.D.C.—E. and S.

APRIL 4.

Roxburgh C.C.—C. Road S., Newtown, St. Boswells.

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APRIL 6.

***Kent E.C.**—Director of Education, Springfield, Mtd.stone.

***West Hartlepool T.C.**—Furniture at "The Brinkburn Municipal Secondary School for Boys." B.E. Dep. £5.

APRIL 7.

Gloucester T.C.—City S.

APRIL 9.

Glasgow T.C.—T.C.

APRIL 11.

London, M.W.B.—Chief E., Room 171, 173, Rosebery-ave., E.C.1.

Tenterden T.C.—B.S.

APRIL 14.

Croydon T.C.—B.E.

APRIL 13.

Barnes T.C.—B.E. and S.

APRIL 20.

***Oldham T.C.**—B.E. & S., 75, Union-st.

ENGINEERING, IRON AND STEEL.

MARCH 30.

Gloucestershire C.C.—Reconstruction of Knee Bridge, Moreton-in-Marsh, and Becketts-ln. Bridge, Winchcomb. C.S., Shire Hall, Gloucester. Dep. £2 2s.

MARCH 31.

†Bristol T.C.—Engineering equipment at Homes for aged and infirm, Fishponds. Thos. S. Lamb, Director of Public Assistance, St. Peter's Hospital. Dep. £5 5s.

Hawkesbury River (New South Wales).—Bridge works. Agent-General for New South Wales, Wellington House, 125, Strand, London, W.C.2.

Kent Rivers Catchment Board.—Strengthening Aylesford bridge over River Medway, nr. Maidstone. Geo. Cubley Crowther, E., 78, College-rd., Maidstone. Dep. £2 2s.

APRIL 7.

Cheshire C.C.—Bridge carrying Nantwich-Audlem-rd. over Birchall's Brook, nr. Hankelow. G. E. Ashforth, C.S. and bridgemaster, Watergate House, Watergate-st., Chester. Dep. £5 5s.

Kingsbridge and Salcombe Water Board. Reservoir. Lemon & Blizard, consulting engineers 24, Lockyer-st., Plymouth. Dep. £3 3s.

APRIL 9.

Lancashire C.C.—Diversion of Lancaster-Heysham-rd. C.S. and Bridgemaster, County Offices, Preston. Dep. £5 5s.

Pembrokeshire C.C.—Reconstruction of Dinas Bridge, Milford Haven. C.S., Willesden House, Haverfordwest. Dep. £5 5s.

Woking U.D.C.—Reconstruction of Monument Bridge. E. and S. Dep. £5 5s.

APRIL 11.

South Africa.—Steelwork for bridges, for Railways and Harbours Administration. Department of Overseas Trade, 35, Old Queen-st., S.W.1. Ref. T.17594/38.

APRIL 20.

Banbury.—Reconstruction of bridge and diversion of River Cherwell, for Great Western Rlwy. Co. E., Paddington Station, London, W.2. Dep. £2 2s.

ROAD, SEWERAGE AND WATER WORKS.

MARCH 30.

Barnsley T.C.—Street works. B.E.

Bude-Stratton U.D.C.—Water supply. F. J. Worden, S., Belle Vue-ave., Bude.

Halifax T.C.—Streets and sewers on Backholdln. and Ovenden Grange estates. D. T. Lloyd Jones, B.E. Dep. £2 2s.

Merton and Morden U.D.C.—Street works. E. and S., Council Offices, Kingston-rd., Merton, S.W.19. Dep. £1.

*** Merton and Morden U.D.C.**—Water Supply to Kendor-gdns. B.E. & S. Dep. £1.

Richmond (Yorks) T.C.—Sewers, drains, and making of roads in connection with 56 houses, Reeth-rd. B.S., 2, Frenchgate.

Sodbury and Thornbury R.D.C.s—Filton and Frome Valley sewerage and sewage disposal works. L. C. St. Leger Yeend, C., Council Offices, Chipping Sodbury, Glos. Dep. £3 each contract.

South Molton R.D.C.—Sewer at Yeo Mill, West Anstey. C. N. B. Willey, C. Dep. £2 2s.

Sunderland T.C.—Sewer at Grangetown. B.E. Dep. £5 5s.

Totnes T.C.—Widening in Collins'-rd. Joseph W. Smith, B.E., 10, High-st. Dep. £1 1s.

West Lancashire R.D.C.—Street works. R. Rosbotham, S., 52, Derby-st., Ormskirk. Dep. £2 2s.

West Sussex C.C.—Making-up of Williams-rd. and North-rd., Bosham. C.S., County Hall, Chichester Dep. £2.

MARCH 31.

Bognor Regis U.D.C.—Making-up of Elmwood-ave. and Westway (part). E. and S. Dep. £2 2s.

Corporation of London.—Sewer works. City E., Guildhall, E.C.2. Dep. £2 2s.

APRIL 1.

Blackpool T.C.—Sewers from Cherry Tree-rd. along Clifton-rd. to Little Marton, and from Cherry Tree-rd. along Preston New-rd. to Little Marton. Henry Banks, B.E. Dep. £3 3s.

Stretford T.C.—Reconstruction of City-rd. E. Parker, B.S. Dep. £2.

APRIL 2.

Buckfastleigh U.D.C.—Laying of tarmac footpath. S.

Chislehurst and Sidcup U.D.C.—Making-up of roads. Ley, Colbeck & Ptnrs., 214, Bishopsgate, E.C.2. Dep. £2 2s.

Littleborough U.D.C.—Sewerage works. John

Taylor & Sons, engineers, Caxton House, Westminster, S.W.1. Dep. £5.

Slough U.D.C.—Soil sewer at Chalvey Grove. Alan Bromly, E.

APRIL 4.

Ashington U.D.C.—Street works. R. Dodds, E. and S.

Barnard Castle U.D.C.—Sewers and additions to sewage purification works. Taylor & Wallin, engineers, 1, Saville-pl., Newcastle-upon-Tyne. Dep. £5.

Droitwich T. C.—Laying out of playing field. R. E. Hulse, B.E. Dep. £2 2s.

Maidstone R.D.C.—Sewerage and sewage disposal works at Yalding. Thos. A. Busbridge, E. and S. Dep. £3 3s.

Sawbridgeworth U.D.C.—Sewerage works. Kenneth Steen, E. and S. Dep. £2 2s.

Wembley T.C.—Water mains. B.E. and S. Dep. £1 1s.

APRIL 5.

Aldershot T.C.—Reconstruction of sewers in Waterloo-rd. B.E. and S. Dep. £1 1s.

Aldershot T.C. — Making-up of Highfield-ave. James Neave, B.E. and S. Dep. £1 1s.

***Bedford T.C.**—Roads and sewers, London-rd. and Goldington housing schemes. B.E. and S., Newnham House, Horne-lane. Dep. £3.

Midhurst R.D.C.—Drainage works at Fernhurst Village. John Taylor and Sons, engineers, Caxton House, Westminster, S.W.1. Dep. £5.

Steurport-on-Severn U.D.C.—Roads, sewers and water mains. L. H. Poole, S. Dep. £2 2s.

APRIL 6.

Cheshire C.C.—Making-up of streets in Poynton-with-Worth, near Macclesfield. R. L. Rogers, District Office, King Edward-st., Macclesfield. Dep. £5 5s.

Esh Village.—Roads and sewers to serve 46 houses, for N.E. Housing Association, Ltd. E. Simpkin, E. and S., Lanchester. Dep. £2 2s.

Luton T.C.—Works in Strathmore-ave. J. W. Tomlinson, B.E. Dep. £2 2s.

Manchester T.C.—Street works. City E. Dep. £2 2s.

Nantyglo and Blaina U.D.C.—Culverting portion of Ebbw Fach stream. G. Roy Jenkins, C., Blaina.

Portsmouth T.C.—Road works. Joseph Parkin, City E. Dep. £3 3s.

Portsmouth T.C.—Roads and sewers at Wymering housing estate. Joseph Parkin, City E. Dep. £3 3s.

Twickenham T.C.—Works in Whitton-rd. G. R. King, B.E. Dep. £2.

APRIL 7.

***Manchester E.C.**—Sewage disposal, Mobberley boys' school, Knolls Green, Knutsford. S. Dep. £2 2s.

Southend-on-Sea T.C.—Widening of Bellhouse-ln. Robert H. Dyer, B.E. and S. Dep. £2.

Southend-on-Sea T.C.—Street works. Robert H. Dyer, B.E. and S. Dep. £1 each street.

APRIL 8.

Wellingborough U.D.C.—Laying of pipes. E. and S. Dep. £1 1s.

APRIL 9.

Chislehurst and Sidcup U.D.C.—Street works. Edgar Lawes, E. and S., Sidcup. Dep. £1 1s.

Doncaster T.C.—Road on Wheatley Park estate. Estates S., 3, Priory-pl.

Littlehampton U.D.C.—Surface-water drainage at Lyminster and Arundel-rds. areas. L. B. Beresford, C. Dep. £2 2s.

Middleton T.C.—Roads and sewers at Rhodes housing estate, Walker-st., Rhodes, and Moorclose housing estate. J. Pollard, B.E. and S. Dep. £2 2s. each contract.

Newbury T.C.—Laying of surface-water sewer in Boborne-rd. and Buckingham-rd. S.

Newbury T.C.—Making-up of Fifth-rd. B.S.

APRIL 11.

Cranbrook R.D.C.—Extending main sewer at Waterloo-rd. E. Clarke, C.

Royton U.D.C.—Street works. E. and S. Dep. £1 1s.

APRIL 12.

Bebington T.C.—Street works. L. Birch, B.E. Dep. £2 2s.

Bedlingtonshire U.D.C.—Street works. J. W. Pooley, E. and S. Dep. £1 1s.

Winchester T.C.—Making-up of Stoney-ln. City E. Dep. 10s. 6d.

APRIL 13.

Hythe T.C.—Sewer in Station-rd. and Prospect-rd. M. J. Harvey, B.S., "Oaklands," Stade-st. Dep. £2 2s.

APRIL 15.

Petersfield R.D.C.—Water supply works at Hawkley. E.

APRIL 16.

Ennerdale R.D.C.—Sewerage works. E. Brown, E. and S.

Lexden and Winstree R.D.C.—Water main extensions. Sands & Walker, Milton-chambs., Nottingham. Dep. £2 2s.

Public Appointments.

MARCH 28.

Beetle T.C.—Quantity Surveying Assistant. B.E. and S.

***Huddersfield T.C.**—Clerk of Works. T.C.

Wembley T.C.—Clerk of Works (Temp.). B.E. and S.

MARCH 29.

***Birmingham E.C.**—Architectural Draughtsman (Temp.). Chief Education Officer, Margaret-st.

MARCH 30.

Hackney T.C. — Architectural Draughtsman. Borough Electrical E., 18-24, Lower Clapton-rd., E.5.

MARCH 31.

***Gravesend T.C.** — Architectural Assistant (Temp.). T.C.

Northamptonshire C.C.—Technical Assistant and Junior (Temp.). G. H. Lewin (F.).

APRIL 1.

***Kensington B.C.**—Assistants. T.C.

***Leamington Spa.**—Clerk of Works.—House Governor, Warneford Hospital.

Rowley Regis T.C.—Technical Assistant. T.C., Old Hill, Staffs.

APRIL 3.

***New Windsor T.C.**—Architectural Assistant (Temp.). B.E. and S.

APRIL 4.

***Walthamstow T.C.**—Two Architectural Assistants (Temp.).—T.C.

Wilts C.C.—Clerk. C., Trowbridge.

APRIL 5.

***Southampton C.C.**—Two Senior Architectural Draughtsmen. County Architect, Winchester.

***Warwick C.C.**— Senior and 1 Junior Architectural Assistants.—County Architect.

APRIL 6.

Dorset C.C.—Two Senior Architectural Assistants. C., Dorchester.

APRIL 8.

***Reading T.C.**—Clerk of Works. T.C.

APRIL 9.

***London.**—Lecturer in Architecture.—Director of Education, The Polytechnic, Regent-st., W.1.

APRIL 11.

***Wigan T.C.**—Two General Engineering and Surveying Assistants and one Assistant Building and Trench Inspector. T.C.

NO DATE.

***Durham C.C.** — Architectural Assistants. F. Willey (F.).

***London.** — Architectural and Engineering Assistants (Temp.), for Air Ministry. Secretary (W9), Adastral House, W.C.2.

***London.**—Assistant Quantity Surveyors, for Air Ministry. Secretary (W.9), Adastral House, W.C.2.

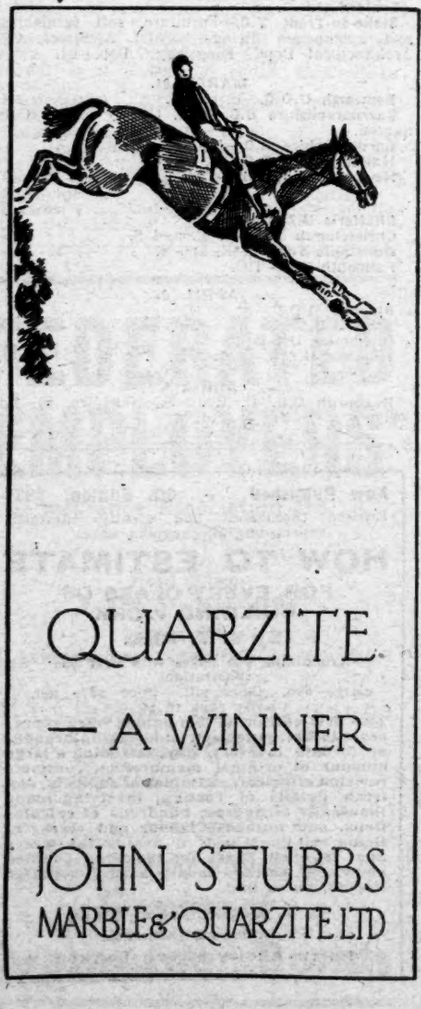
***London.**—Architectural Assistants, for L.C.C. Architect, County Hall Westminster Bridge, S.E.1.

***London.**—Takers-off and Workers-up, for Air Ministry. The Secretary (W.4.a.), Victory House, W.C.2.

***Preston.**—Clerk of Works (Temp.). D.C.R.E., East Lancs Area, 32, Mayfield-rd., Whalley Range, Manchester.

***Somerset C.C.**—Clerk of Works. A. J. Toomer, County Architect, Taunton.

***Staffordshire E.C.** — Junior Architectural Draughtsman.—Director of Education.



CURRENT AND PROPOSED BUILDING WORK*

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Where business representatives cannot be seen personally at this stage, this should be mentioned. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

Ashton-under-Lyne.—B.S. to prepare plans for 34 houses on Nook-ln. site and submit them to M. H. for approval; lay-out for 50 houses on Holden-st. site been approved.

Aylesbury.—Plans prepared by H. J. Starkey, 15, Curzon-st., W.1, for large omnibus garage, etc., in Buckingham-st.

Barrow-in-Furness.—T.C. approved:—Shop premises (amended plan), north-east junction of Dalton-rd. and Cavendish-st., for Montague Burton, Ltd.

Bath.—T.C. instructed S. of Corporate Property to obtain tenders for external painting number of properties.—Council approved rebuilding 24, 25 and 25a, Stall-st.

Battersea.—B.C. recommend internal and external painting works, 12 and 13 chimneys, at £192, and external painting works, 14, 15, 16 and 17 chimneys, at £276, at electricity works.

Birkenhead.—Richard Owens & Sons, architects, 3, Crosshall-st., Liverpool, are preparing plans for hotel and shops with flats over in Stanley-rd. at £10,000.

Bolton.—Rev. Chronnell, of St. Edmunds, proposes buildings at Eastbourne-gr. Plans by H. Greenhalgh, 15, Mawdesley-st., Bolton.

Bradford.—W. Parkinson & Sons, motor engineers, 113, Manningham-ln., propose garage and workshops, St. Jude's-pl., Manningham. Architects, S. Robinson & Son, 15, Cheapside.

Bromley.—T.C. approved:—W. G. Reynolds, 15 flats and 8 garages, Palace-gr.

Caernarvon.—Hospitals and Sanatorium Committee propose extensions to Galltysil Hospital. Plans by County Architect, W. Lloyd Jones, Caernarvon.

Calstor (Lincs).—R.D.C. acquired former licensed premises known as "Old Griffin Hotel," for proposed conversion into offices and council chamber.

Carlisle.—City Council approved scheme for bridge over River Petteril.

Caterham and Warlingham.—U.D.C. approved: Additions, County School for Girls, Whyteleafe Mill, Whyteleafe, Surrey C.C., per Jarvis & Richards; lay-out and land unit (27 houses), Farleigh-rd., Warlingham, P. E. Good, per Sinden, Tompkins & King.

Chatham.—T.C. announced that two new schools were to be built, one at Magpie Hall-rd. and another at Corkwell Farm.

Chester.—T.C. resolved that T.C. make enquiries in respect of erection of approximately 300 houses at Blacon by C. J. Curtis & Co.—Council resolved that Davies-court area be a clearance area.—Plans passed:—26 houses at Sealand-rd., T. B. Gorst & Sons; shops and offices at Frodsham-st., District Bank, Ltd.

Chesterfield.—T.C. approved:—Shop and business premises, Gluman-gate, for Haag's.

Church Cresley.—Miners' Welfare Central Fund Committee propose pithead baths, Cadley Hill. J. H. Forshaw, architect, Romney House, Marsham-st., London, S.W.1.

Cleadon.—Plans being prepared by T. H. Turnbull, Seacroft, Blackhall Rocks, for sports stadium; including dog-racing track, for White City (Newcastle), Ltd. There will be accommodation for 3,000 people in paddock and 12,000 in enclosure.

Coleshill.—Mitchells & Butlers, Ltd., Cape Hill Brewery, Smethwick, proposing hotel, Coventry-rd., Elmdon.

Coventry.—Managers of St. Osburg's, Christ the King and All Souls, proposing senior school at Earlsdon. Plans by Harrison & Cox, 109, Colmore-row, Birmingham.

Crosby.—Plans for 24 houses and 16 flats at Sandy-rd. been approved by T.C.

Croydon.—C.B. received M.H. sanction to borrow £9,727 for reconditioning of Whitehorse Manor school; £286 for reconditioning roofs of Whitehorse Manor school; £2,851 reorganisation of heating arrangements at Warlingham Park Hospital; and £20,663 for bridge works for Croham-rd. reconstruction.—Plans passed Hoare & Co., Ltd., Surveyor's Dept., 86, Fenchurch-st., E.C.3, cloakrooms, garage and car park, "Goat House" p.h., Penge-rd., South Norwood; Corporation, "Electric House," 38, High-st., electrical sub-station, 2, Whitehorse-rd., Whitehorse Manor; Creed & Co., East Croydon, canteen and offices, junction of Colson-rd. and Addiscombe-rd., Addiscombe; W. & H. West, Ltd., "Fairhaven," Gladeside, Monk's Orchard, 32 houses and garages, Aldersmead-av., off The Glade; Wates, Ltd., 1258/60, London-rd., S.W.16, 60 houses and garages, Hermitage-rd., Convent Wood estate, Upper Norwood; H. & W. Bourne, Ltd., Spring-ln., Woodside, S.E.25, office addition, Spring-ln., Woodside.

Darlington.—Bussey & Armstrong, builders, Brinkburn-rd., to erect 24 houses in Meadowfield-rd.

* **See also List of Contracts Open.**

"*" In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. List of abbreviations on page 618.

Dudley.—Julia Hanson & Sons, Ltd., brewers, 4, Tower-st., propose rebuilding "White Swan" inn, Castle-st. Scott & Clarke, architects, Regent-chams., Wednesbury.

Ealing.—Plans passed by T.C.:—Percy Bilton (Ealing), Ltd., 113, Park-st., W.1, 32 flats, Brunswick-rd.; Whitton Park Estates (architects, P. Chase Gardener & Co., Hounslow), 3 shops with living accommodation over, Uxbridge-rd., W.7; Bloomfield Building Co., Ltd., Estate Office, Delamere-rd., W.5, 18 houses and garages, Delamere-rd.; A. G. Cox (surveyor, H. Prior, 279, Gunnersbury-pk., W.5), warehouse and alterations, 66, Bilton-rd.; Uxbridge and District Electric Supply Co., Ltd., sub-stations at Lime Trees estate and Rathbone-rd.

Gateshead.—T.C. approved:—Barclays Bank, Ltd., premises, North Eastern Trading Estate, Lobley Hill; Newcastle Breweries, Ltd., hotel, Chowdene estate, Low Fell; Trustees of Robert Affleck (deceased), alterations to property, 2-38, Russell-st. and 16-30, Eldon-st.; Bass, Ratcliffe & Gretton, rebuilding of "The Albion Hotel," High-st.

Gateshead-on-Tyne.—Plans by W. & T. R. Milburn, 17, Fawcett-st., Sunderland, been approved for two new factories on Team Valley Trading estate.—

Grays.—Electricity sub-station at £900; welfare centre and tuberculosis dispensary, and library combined, both for Thurrock U.D.C.—Plans approved:—Lay-out of estate at Blackshots-ln., Grays, W. J. Kendall; 20 houses and bungalows, F. C. Stark & Co.

Grimsby.—T.C. approved:—Church hall, addition to existing Louth-rd. Methodist church, Trustees of Louth-rd. Methodist Church.

Halesowen.—T.C. approved following plans:—25 houses at Bromsgrove-rd., for T. Cosbery; additions to police station, Nimmings-rd., Cakemore, for Worcestershire C.C.

Hampstead.—B.C. to provide five new underground sub-stations at £3,130.

Hebburn-on-Tyne.—Plans prepared for drying and varnishing stores, decontamination centre and first-aid rooms at Reyrolles & Co.'s works, and also cricket pavilion in firm's playing fields. Architects, Cackett, Burns Dick and MacKellar, 21, Ellison-pl., Newcastle-on-Tyne.

Hendon.—T.C. approved: Pavilion incorporating conveniences and dressing accommodation, at £1,850, in Edgwarebury-pk.; convenience, at £600, in Woodcroft-pk.; and convenience in Lyndhurst-pk.—Revised application been made to M.H. for sanction to borrowing of £22,748 for laying out Copthall playing fields.—Bandstand to be constructed in teak, at £525, at Watling-pk., and tenders invited.

Heywood.—Parker & Calvert, Wood-st., propose 6 shops in Peel-ln. Plans by own staff.—J. Berry, Ltd., Chapel-st., propose lay-out of 89 houses, Corry-st. to Chadwick-ln. Plans by own staff.—Plans approved by T.C.:—"Grapes" hotel, George-st., Rochdale and Manor Brewery, Ltd. Architect, J. Townend, Fleece-st., Rochdale.

Hornchurch.—S. to U.D.C. submitted estimate for fencing at Elm-pk., Harrow Lodge-pk., and Maylands Green open space, at £3,620.—Plans passed: Lay-out of Princes Park estate, South Hornchurch, H. E. Bradshaw; stable block, St. Lawrence-rd., United Dairies (London), Ltd.; school assembly hall, St. Mary's-ln., Rev. Mother Canice; 3 shops, Colchester-rd., H. F. Rowe; lay-out of Ford estate, off Ford-ln., Hornchurch, S. Dudley; 18 houses, Rainham-rd., M. C. Vandenabeele; 17 houses, Plumpton-av., W. A. Martin; 16 houses, Rothbury-av., T. J. Thorne; steelwork drawings, shops, flats over, Station-rd., T. C. Jones & Co., Ltd.; offices, Ferry-ln., Murex, Ltd.; additions, church rooms, Nelmes-rd. Congregational Church; lay-out of part of Elm Park estate, R. Costain, Ltd.

Leeds.—Corporation approved lay-out plan for north section of Sweet-st. area for 326 flats and 8 shops. Plans, quantities, etc., by R. A. H. Livett (A.), Director of Housing. Tenders to be invited shortly.—Community hall also to be erected on Quarry Hill site to accommodate 520 persons.

Lewisham.—B.C. approved clearance scheme in Chaplin-st., Forest Hill area.—Plans passed: M. J. Gleeson, Ltd., block of 32 flats at "The Elms," Belmont-hill, to abut upon Belmont-gr.; Wates, Ltd., houses on Catford Park estate, Catford; J. W. Heath & Sons, 19 houses, Abbotswell-st.; W. J. Cearns, Ltd., additions to Catford Stadium, Adenmore-gdns.; New Ideal Homesteads, Ltd., 10 houses at 147-165, Bexhill-rd., Brockley, and 7 blocks of two-storey flats at rear of and on west side of Blythe Hill-ln., Catford.

Leyland.—Parochial Council of St. Ambrose Parish Church propose school and parochial hall. Plans by J. Greaves Scholes, F.S.I., 23, Richmond-ter., Blackburn.

Liverpool.—McDonald & Savage, architects, 7, Sweeting-st., preparing plans for additional storey to works, Greenland-st., for W. Walker (Liverpool), Ltd., 22, Greenland-st.—J. Howard Williams & Son, estate agents, 14, South Castle-st., propose office building, Seel-st. and Hanover-st. Architect, Kenmure Kinna, 14, Castle-st.—F. Banner & Son, 4, Fir-rd., Waterloo, propose 22 houses, Easton-rd., Page Moss estate, Huyton.

London.—City Corporation approved: Joiners' Hall-bldgs., Greenwich-st., rebuilding; Sir John Cass Technical Institute, Jewry-st., Vine-st., and India-st., additional storeys on new wing; extension of basement at "Armour House," 40, St. Martin's-le-Grand; rebuilding of sections 4 and 5 of "Plantation House," Eastcheap and Mincing-ln.

London.—L.C.C. given permission to Islington B.C. to borrow £13,000 for housing on Stanley Lodge site, Warltersville-rd. and to Kensington B.C. for £2,380 for housing in Bramley-rd.—Council recommend £536 for extension of junior technical course in cookery at L.C.C. South-East London Technical Institute, Deptford.

Macclesfield.—P. Wright, architect, 27, King Edward-st., prepared lay-out plans for development of land off Congleton-rd. for 46 houses, for B. Stoddard & Son, 57, Chestergate.

Manchester.—A. A. G. Toone, architect, 19, Chapel-walks, preparing plans for flats, Mayfield-rd. and Alexandra-rd. South, Whalley Range, for Mrs. Richard.—Plans approved by T.C.:—97 houses, off Victoria-av. East, Blackley, Greenwood & Tyson, Victoria estate, Rochdale-rd., architect, P. G. Kelvey, 379, Moss-ln. East

Mansfield.—C. P. Evinson, Ltd., 51, West Gate, propose petrol-filling station. Plans by Aubrey Lane & Sons, architects, Leeming-chams., Leeming-st.

Middleton.—St. George's Rectory damaged by fire recently to be rebuilt. Architect, Richard Wylie, 51, Grainger-st., Newcastle-on-Tyne.

Newcastle-on-Tyne.—Newcastle and Gateshead Gas Co., Grainger-st., proposes extensions to Elswick gasworks.—It is proposed to carry out extensive alterations at "Crown Inn." W. & T. R. Milburn, 17, Fawcett-st., Sunderland, architects.

Olton.—Ideal Benefit Society, Pitmaston, Moseley, Birmingham, to erect 1,500 houses. Architects, Beard, Bennett & Cooper, 177, Corporation-st., Birmingham.

Oswestry.—Management of Oswestry Cottage Hospital propose nurses' home. Architect, S. Fox-Davies, M.Inst.R.A., Memorial Hall.

Oxford.—Board of Governors of Wingfield-Morris Orthopædic Hospital adopted plans for extensions to premises, Headington. Architect, R. Fielding Dodd (F.), 21, Turl-st.

Paignton.—Parochial Council to proceed with church of St. Paul, Preston. Plans by N. F. Cachemaille-Day (F.), 26, Dorset-st., W.1. Cost is estimated at £10,000.

Pelaw-on-Tyne.—It is proposed to erect additional storey to printing works in Shields-rd. for C.W.S. (Newcastle Division). Plans by C.W.S. Architects' Dept., 90, Westmorland-rd., Newcastle-on-Tyne.

Portsmouth.—T.C. approved:—Brickwood & Co., Ltd., rebuilding "Cumberland Tavern" p.h., Eastney-rd.

Rotherham.—V. Dunk & Co., Ltd., builders, Oakwood-rd., propose 106 houses and 6 shops for Wellgate. A. Watson, builder, Grange Farm, Kimberworth, proposes 38 houses, Droppingwell-rd.

Rugby.—T.C. approved plans: "New Bell Inn," Hillmorton, Hunt, Edmund & Co., Ltd., Warwick-st., Leamington Spa; 24 houses, Kingsley-av., and Millfields estate, E. Hopkins & Co., Fir Tree-av., Tile Hill; 26 houses, St. Oswald's estate, Browning Bros., 3, Main-st., Humberstone; 22 maisonette flats in 6 blocks, Buxton-rd., Davis Estates, Ltd., Rugby Station estate.

Ruislip-Northwood.—Plans passed by U.D.C.:—A. Castle & Co., 6 houses, Victoria-rd., South Ruislip, 6 houses and 35 bungalows and garages, College-dr., Westholme-gdns. and Hawtrey-dr., Ruislip.—Council propose 24 houses in Breakspear-rd. and 12 homes for aged people in Fore-st., Eastcote.

Scunthorpe.—Arthur Morrison, 23, Park-st., and S. Kennedy, New Brumby, proposing greyhound and speedway racing stadium at Scotter-rd. at £12,000. Architect, L. Bickley, 50, Exeter-rd.—Scunthorpe Youth Centre Committee propose youth centre, Doncaster-rd., with accommodation for 800. Architects, Buttrick & Buttrick, 43 Oswald-rd.

Sheffield.—Plans approved by T.C.: Basket factory, Penistone-rd. North, John May (Sheffield), Ltd., 33, Arundel-st.; 38 houses, Norton Lees-sq., F. B. Skinner & Sons, Ltd., builders, Little Norton-la., Woodseats; 21 flats and 16 garages, Westbourne-rd., C. B. M. Wilson, architect, Campo-chams.; billiards hall and dance hall, Dagnam-cres., rear of Manor Cinema, City-rd., for local syndicate. Architects, Fowler, Sandford & Potter, 8, St. James-st.; garage and filling station extensions, Abbeydale-rd. South, Bookless Bros., Dore.—Neepsend Steel and Tool Corporation, Ltd., Neepsend Works, propose works on Penistone-rd. North. Architects, Alfred Appleby & Son, St. James-st.—Thomas Rawson & Co., Ltd., Pond-st. Brewery, propose erection of "Princess Royal" hotel at Retford-rd., Woodhouse Mill.

Southampton.—C.B. approved:—New Ideal Homesteads, Ltd., 107 houses (amended), off Bitterne-rd. (Chessel-cres., etc.), and 147 houses and 80 maisonnettes, new streets off Pear Tree-av. (Ridgeway Park estate); G. R. Blake, 34 houses, new street off Dale-rd. (Hollybrook Park estates); Healing & Overbury, for Edwin Jones & Co., Ltd., shops, showroom and goods warehouse, East-st. and Houndwell-pl.; W. C. Mangan, for Trustees of the Roman Catholic Diocese of Portsmouth, church and presbytery, Portsmouth-rd. and Manor-rd.

Stockport.—Richard Clarke & Co., Ltd., Reddish Brewery, propose to rebuild "Crown Inn," Heaton Moor-rd. Architects, G. Westcott, F.M.S.A., 31, Byrom-st., Deansgate, Manchester.

Stoke-on-Trent.—Hardy & Co. (Furnishers), Ltd., Clayton-st., Newcastle-on-Tyne, propose furniture store, Parliament-row, Hanley. Plans by A. Cotton, Son & Hulme, Piccadilly, Tunstall.

Stretford.—Estimate for Guild Hall to be repaired, adapted and equipped for gas building to be prepared.—Estimates to be prepared for adapting or erecting premises at Empress-st. depot, and also of renting and adapting a suitable house in Stretford-rd. adjacent to public baths, for proposed anti-gas school.—Tenders to be invited for certain works of reparation at gentlemen's plunge at Old Trafford baths.—Plans passed: Garage (commercial), Cornbrook-gr., J. Galway; offices, etc., Trafford Park-rd., Stretford and District Electricity Board; 20 houses, Moss Park-rd. and St. David's-walk, Freeman, Evans & Co.

Sunderland.—Work started on clearing of site at Pallion for clothing factory, for King and Co. (Sunderland), Ltd. Architects, W. & T. R. Milburn, 17, Fawcett-st.—J. Deuchar & Co., Ltd., brewers, Newcastle, propose to rebuild "Sun Inn" at Southwick. W. & T. R. Milburn.

Swansea.—E.C. to be recommended to provide swimming and bathing facilities for the school children on foreshore from West Pier to Caswell Bay.—South Wales Transport Co., Ltd., to use certain land adjacent to present bus depot at Caer-eithen for repair shop.—Borough Architect intimated intention of Housing Committee to erect 140 houses on site in Fforestfach area.—Plans passed: Rebuilding workshop, Mumbles-rd., Blackpill, exors. of late Dd. Lloyd; sub-station, Clifton-row, Electricity Committee

Taunton.—T.C. approved plans for 52 houses off Priorswood-rd., Colborne's Estates, Ltd.

Wakefield.—T.C. approved:—67 houses, Haddingley Hall, D. F. Mann & Sons, Thorpe.

Walthamstow.—T.C. received from B. of E. approval of sketch plans for alterations and additions at Wood-st. school, and for removal of galleries at £3,570 at certain schools.—B.E. and S. to engage services of quantity surveyor in connection with branch library, Wood-st.—Plans passed:—21 houses, Church-ln., J. & J. Dean.

West Ashford.—54 semi-detached houses to be built. E. A. Jackson appointed architect. Tenders to be invited for some of the houses.

Wigan.—Miners' Welfare Central Fund Committee propose pithead baths at Wigan Junction. J. H. Forshaw, architect, Romney House, Marsham-st., London, S.W.1.

Wimbledon.—B.S. re-submitted plan for 60 flats, in two blocks, three storeys in height, on land between Abbott-av. and Kingston-rd.

Wolverhampton.—T.C. approved:—Wellings & Co., Ltd., Newhampton-rd. West, extension to factory; Housing Committee, Commercial-rd., York-st., Duke-st., Wharf-st., Sharrocks-st., 90 houses; Silcostyle Estates, Ltd., Bhylls Farm estate, 27 houses; H.M.O.W., Three Tuns-ln., telephone exchange; Tinsley Wire Industries, Ltd., Showell-rd., factory; G. H. Guest, Deans-rd. and Old Heath-rd., 6 houses and 2 shops; Governors, Wolverhampton Grammar School, Compton-rd., additions to school; Housing Committee, Dixon-st., 48 houses; Watch Committee, Salop-st., Peel-st. and Great Brickkiln-st., police quarters, magistrates' court and fire station; Wolverhampton Gas Co., Darlington-st. and Waterloo-rd., rebuilding of offices and showrooms.

Worthing.—T.C. approved:—Friary, Holroyd & Healys Breweries, Ltd., rebuilding of "North Star," Littlehampton-rd.; Godman & Kay, for Henty & Constable, rebuilding "King's Arms," Montague-st.

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New Racecourse Stands.

New racecourse grandstands are to be erected at Doncaster and Lincoln courses. Plans are in course of preparation for both schemes by Messrs. Yates, Cook and Darbyshire, 43, Great Marlborough-street, W.1. No contracts have yet been placed.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1938.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.
Aberavon	1/7½	1/2½	Clitheroe	1/7½	1/2½	Isle of Wight	1/4½	1/0½	Sawbridgeworth	1/5½	1/1½
Aberdare	1/7	1/2½	Cobham (Surrey)	1/6½	1/2	Keighley	1/7½	1/2½	Saxmundham	1/3½	11½
Abergavenny	1/7	1/2½	Colchester	1/6½	1/2	Kenilworth	1/7½	1/2½	Scarborough	1/7	1/2½
Abingdon	1/6	1/1½	Colwyn Bay	1/6½	1/2	Kettering	1/7	1/2½	Scunthorpe	1/7½	1/2½
Accrington	1/7½	1/2½	Congleton	1/7	1/2½	Kidderminster	1/6½	1/2	Selby	1/7½	1/2½
Aldeburgh	1/3½	11½	Coventry	1/7½	1/2½	King's Lynn	1/5	1/0½	Sevenoaks	1/6	1/1½
Aldershot	1/5½	1/1½	Cranbrook	1/5	1/0½	Kirkham	1/7½	1/2½	Sheerness	1/5	1/0½
Alfreton	1/7½	1/2½	Cranleigh	1/5½	1/1½	Knowle	1/7	1/2½	Sheffield	1/7½	1/2½
Alnwick	1/7	1/2½	Crawley	1/5½	1/1½	Lancaster	1/7½	1/2½	Shipley	1/7½	1/2½
Altrincham	1/7½	1/2½	Crewe	1/6½	1/2	Leamington	1/7½	1/2½	Shoeburyness	1/7	1/2½
Amble	1/7	1/2½	Cromer	1/4½	1/0½	Leatherhead	1/6½	1/2	Shoreham	1/6½	1/2
Amersham	1/6	1/1½	Crowborough	1/5½	1/1½	Leeds	1/7½	1/2½	Shrewsbury	1/6½	1/2
Ammanford	1/7½	1/2½	Cuckfield	1/5½	1/1½	Leicester	1/7½	1/2½	Sittingbourne	1/5	1/0½
Andover	1/5½	1/1½	Darlington	1/7½	1/2½	Leighton Buzzard	1/4½	1/0½	Skegness	1/6½	1/2
Ardingley	1/5½	1/1½	Darwen	1/7½	1/2½	Letchworth	1/6	1/1½	Sleaford	1/6	1/1½
Arundel	1/5½	1/1½	Daventry	1/6	1/1½	Lewes	1/5½	1/1½	Slough	1/6½	1/2
Ascot	1/5½	1/1½	Deal	1/5	1/0½	Lichfield	1/6½	1/2	Southampton	1/7	1/2½
Ashby-de-la-Zouch	1/6	1/1½	Denbigh	1/6	1/1½	Lincoln	1/7½	1/2½	Southend-on-Sea	1/7	1/2½
Ashford (Kent)	1/5	1/0½	Derby	1/7½	1/2½	Littlehampton	1/5½	1/1½	Southport	1/7½	1/2½
Ashford (Middlesex)	1/7½	1/2½	Devizes	1/4*	1/0	Liverpool	‡§1/8½	¶	South Shields	1/7½	1/2½
Ashington	1/7	1/2½	Dewsbury	1/7½	1/2½	Llandudno	1/6½	1/2	Spalding	1/5½	1/1½
Ashtead	1/7½	1/2½	Didcot	1/5½	1/1½	Llanelly	1/7½	1/2½	Stafford	1/7	1/2½
Ashton-under-Lyme	1/7½	1/2½	Diss	1/4	1/0	London—			Staines	1/6½	1/2
Aylesbury	1/5½	1/1½	Doncaster	1/7½	1/2½	12 m. radius	1/9*	1/3½	Stamford	1/6½	1/2
Aylsham	1/4½	1/0½	Dorchester	1/5*	1/0½	12-15 m. radius	1/8½*	1/3½	Stevenage	1/6	1/1½
Bagshot	1/5½	1/1½	Dorking	1/6	1/1½	Long Eaton	1/7½	1/2½	Stockport	1/7½	1/2½
Banbury	1/5½	1/1½	Dover	1/5	1/0½	Longton	1/7½	1/2½	Stockton-on-Tees	1/7½	1/2½
Barnsley	1/7½	1/2½	Dovercourt	1/5½	1/1½	Loughborough	1/7½	1/2½	Stoke-on-Trent	1/7½	1/2½
Barnstaple	1/5½	1/1½	Driffield	1/6	1/1½	Louth	1/6	1/1½	Stourbridge	1/7	1/2½
Barrow-in-Furness	1/7½	1/2½	Droitwich	1/6½	1/2	Lowestoft	1/5½	1/1½	Stourport	1/6½	1/2
Barry	1/7½	1/2½	Dudley	1/7½	1/2½	Luton	1/7	1/2½	Stowmarket	1/4	1/0
Basingstoke	1/5½	1/1½	Dunstable	1/5½	1/1½	Macclesfield	1/7	1/2½	Stratford-on-Avon	1/6	1/1½
Bath	1/6½	1/2	Durham City	1/7½	1/2½	Maidenhead	1/6	1/1½	Stroud	1/6†	1/1½
Batley	1/7½	1/2½	Eastbourne	1/6½	1/2	Maidstone	1/6	1/1½	Sunderland	1/7½	1/2½
Beaconsfield	1/6	1/1½	E.Glam. (Mon. Val.)	1/7	1/2½	Malvern	1/6	1/1½	Sutton Coldfield	1/7½	1/2½
Beccles	1/4	1/0	East Grinstead	1/5½	1/1½	Manchester	1/7½	1/2½	Swaffham	1/3½	11½
Bedford	1/6½	1/2	Edenbridge	1/5½	1/1½	Manningtree	1/4	1/0	Swanage	1/5½*	1/1½
Berkhamsted	1/5	1/0½	Ely	1/4	1/0	Mansfield	1/7½	1/2½	Swansea	1/7½	1/2½
Berwick	1/7	1/2½	Epping	1/7½	1/2½	March	1/4½	1/0½	Swindon	1/6*	1/1½
Beverley	1/7½	1/2½	Exeter	1/6½†	1/2	Margate	1/5	1/0½	Tamworth	1/7	1/2½
Bexhill-on-Sea	1/5½	1/1½	Exmouth	1/5½	1/1½	Market Harborough	1/6½	1/2	Taunton	1/5½	1/1½
Bideford	1/5½	1/1½	Fakenham	1/4	1/0	Matlock	1/6	1/1½	Tenterden	1/5	1/0½
Biggleswade	1/5	1/0½	Falmouth	1/6	1/1½	Melton Constable	1/3½	11½	Thames Haven	1/7½	1/2½
Billericay	1/5	1/0½	Fareham	1/6½	1/2	Melton Mowbray	1/6½	1/2	Thetford	1/4	1/0
Birchington	1/5	1/0½	Faversham	1/5	1/0½	Merthyr Tydfil	1/7	1/2½	Thorpe Bay	1/7	1/2½
Birkenhead	‡§1/8½	¶	Felixstowe	1/6	1/1½	Middlesbrough	1/7½	1/2½	Todmorden	1/7½	1/2½
Birmingham	1/7½	1/2½	Filey	1/6	1/1½	Middleton	1/7½	1/2½	Tonbridge	1/6	1/1½
Bishop Auckland	1/7½	1/2½	Fleetwood	1/7½	1/2½	Middlewich	1/6½	1/2	Torquay	1/7	1/2½
Bishops Stortford	1/6	1/1½	Flint	1/7	1/2½	Milford Haven	1/5½	1/1½	Totnes	1/5½	1/1½
Blackburn	1/7½	1/2½	Folkestone	1/5	1/0½	Morecambe	1/7½	1/2½	Trowbridge	1/4½*	1/0½
Blackpool	1/7½	1/2½	Frinton-on-Sea	1/5½	1/1½	Morley	1/7½	1/2½	Truro	1/4½	1/0½
Blyth	1/7½	1/2½	Frome	1/4½*	1/0½	Mundesley	1/4½	1/0½	Tunbridge Wells	1/6	1/1½
Bognor Regis	1/5½	1/1½	Gainsborough	1/6½	1/2	Nantwich	1/6½	1/2	Uppingham	1/6	1/1½
Bolton	1/7½	1/2½	Gateshead	1/7½	1/2½	Nelson	1/7½	1/2½	Uttoxeter	1/6	1/1½
Bournemouth	1/6½	1/2	Gillingham (Kent)	1/6	1/1½	Newark-on-Trent	1/6½	1/2	Wakefield	1/7½	1/2½
Bracknell	1/5½	1/1½	Glossop	1/7½	1/2½	Newbury	1/5½	1/1½	Walsall	1/7½	1/2½
Bradford	1/7½	1/2½	Gloucester	1/6½†	1/2	Newcastle-on-Tyne	1/7½	1/2½	Walsden	1/7½	1/2½
Bradford-on-Avon	1/4½*	1/0½	Godalming	1/5½	1/1½	Newcastle-u-Lyme	1/7½	1/2½	Walton-on-Naze	1/5½	1/1½
Braintree	1/5½	1/1½	Goole	1/7½	1/2½	New Forest	1/4½	1/0½	Ware	1/6½	1/2
Brentwood	1/7	1/2½	Gosport	1/6½	1/2	Newmarket	1/5½	1/1½	Warminster	1/4½*	1/0½
Bridgwater	1/5½	1/1½	Grantham	1/6½	1/2	Newport, Mon.	1/7½	1/2½	Warrington	1/7½	1/2½
Bridlington	1/7	1/2½	Gravesend	1/7	1/2½	Newport Pagnell	1/5½	1/1½	Warwick	1/7½	1/2½
Brighouse	1/7½	1/2½	Great Yarmouth	1/5½	1/1½	Northampton	1/7½	1/2½	Wellingborough	1/7	1/2½
Brighton	1/6½	1/2	Grimsby	1/7½	1/2½	Norwich	1/7½	1/2½	Wells (Norfolk)	1/3½	11½
Bristol	1/7½	1/2½	Guildford	1/5½	1/1½	Nottingham	1/7½	1/2½	Welwyn	1/6½	1/2
Broadstairs	1/5	1/0½	Guilsborough	1/6	1/1½	Nuneaton	1/7½	1/2½	Welwyn Gar. City	1/7½	1/2½
Bromsgrove	1/6½	1/2	Halifax	1/7½	1/2½	Oakham	1/6	1/1½	West Bromwich	1/7½	1/2½
Buckley	1/7½	1/2½	Hanley	1/7½	1/2½	Oldham	1/7½	1/2½	Westcliff-on-Sea	1/7	1/2½
Bungay	1/3½	11½	Harpenden	1/6	1/1½	Ormskirk	1/7½	1/2½	Weston-super-Mare	1/6½	1/2
Burnham-on-Crouch	1/4	1/0	Harrogate	1/7½	1/2½	Oxford	1/7	1/2½	Weybridge	1/6½	1/2
Burnley	1/7½	1/2½	Hartlepools	1/7½	1/2½	Oxted	1/6	1/1½	Weymouth	1/5*	1/0½
Burslem	1/7½	1/2½	Harwich	1/5½	1/1½	Paignton	1/7	1/2½	Whitby	1/6½	1/2
Burton-onTrent	1/7½	1/2½	Haslemere	1/5½	1/1½	Peterborough	1/7	1/2½	Whitstable	1/5	1/0½
Bury	1/7½	1/2½	Hastings	1/5½	1/1½	Plymouth	1/7½	1/2½	Widnes	1/7½	1/2½
Bury St. Edmunds	1/5	1/0½	Hatfield	1/6½	1/2	Pontefract	1/7½	1/2½	Wigan	1/7½	1/2½
Buxton	1/7	1/2½	Haywards Heath	1/5½	1/1½	Pontypridd	1/7	1/2½	Wigton	1/6	1/1½
Byfleet	1/6	1/1½	Hednesford	1/7	1/2½	Portsmouth	1/6½	1/2	Willington	1/7	1/2½
Cambridge	1/7	1/2½	Hemel Hempstead	1/6½	1/2	Port Talbot	1/7½	1/2½	Wilmslow	1/7½	1/2½
Canterbury	1/5	1/0½	Henley-on-Thames	1/5½	1/1½	Preston	1/7½	1/2½	Winchester	1/5½	1/1½
Cardiff	1/7½	1/2½	Hereford	1/5½*	1/1½	Pulborough	1/5½	1/1½	Windermere	1/6	1/1½
Carlisle	1/7½	1/2½	Herne Bay	1/5	1/0½	Ramsgate	1/5	1/0½	Windsor	1/6½	1/2
Carnforth	1/7½	1/2½	Hertford	1/6½	1/2	Reading	1/6½	1/2	Wisbech	1/4½	1/0½
Castleford	1/7½	1/2½	Heysham	1/7½	1/2½	Redditch (Northern)	1/6½	1/2	Witham	1/5½	1/1½
Caterham	1/7½	1/2½	Hitchin	1/6	1/1½	Redhill	1/6	1/1½	Woking	1/6	1/1½
Chard	1/4½*	1/0½	Hoddesdon	1/6½	1/2	Reigate	1/6	1/1½	Wokingham	1/5½	1/1½
Chatham	1/6	1/1½	Holt (Norfolk)	1/3½	11½	Retford	1/6	1/1½	Wolverhampton	1/7½	1/2½
Chelmsford	1/6	1/1½	Horley	1/5½	1/1½	Rickmansworth	1/7	1/2½	Woodbridge	1/4½	1/0½
Cheltenham	1/6½	1/2	Horsham	1/5½	1/1½	Ripon	1/6	1/1½	Worcester	1/7	1/2½
Chepstow	1/6½	1/2	Horwich	1/7½	1/2½	Rochdale	1/7½	1/2½	Workington	1/6½	1/1½
Chertsey	1/6½	1/2	Huddersfield	1/7½	1/2½	Rochester	1/6	1/1½	Worksop	1/6	1/2
Chester	1/7½	1/2½	Hull	1/7½	1/2½	Rugby	1/7½	1/2½	Worthing	1/5½	1/1½
Chesterfield	1/7½	1/2½	Hunstanton	1/4	1/0	Saffron Walden	1/4	1/0	Wrexham	1/7	1/2½
Chichester	1/5½	1/1½	Huntingdon	1/4½	1/0½	St. Albans	1/7	1/2½	Wroxham	1/5	1/0½
Chorley	1/7½	1/2½	Ilfracombe	1/5½	1/1½	St. Helens	1/7½	1/2½	Wycombe	1/6	1/1½
Cirencester	1/5*	1/0½	Ingatestone	1/5½	1/1½	St. Neots	1/4½	1/0½	Wymondham	1/4	1/0
Clacton	1/5½	1/1½	Ipswich	1/6½	1/2	Salisbury City	1/4½*	1/0½	Yeovil	1/5½	1/1½
Cleveleys	1/7½	1/2½	Isle of Thanet	1/5	1/0½	Salisbury Plain	1/4½*	1/0½	York	1/7½	1/2½

* Painters 1d. less than other Craftsmen. † Painters ½d. less than other Craftsmen. ‡ Plasterers 1/9

¶ Tradesmen's Labourers 1/3½. Navvies and General Labourers 1/3

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

For Building Trade Wages in Scotland see page 626.

CURRENT PRICES FOR BUILDING WORK IN LONDON.

Note.—These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10 per cent. on the prime cost, without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts, and from 1s. 6d. per £100 Fire Insurance. The whole of the information given is copyright.

PRELIMINARIES.		£	s.	d.
Hoardings, with suitable gate, 8 ft. high	per ft. run	0	3	0
Steel scaffolding for brickwork	per sqre.	1	5	0
Steel scaffolding for stone building	,,	1	10	0
Steel gantry for stone building	per ft. run	2	10	0
Office, shed for cement and mess-room	say	75	0	0
EXCAVATOR.				
Digging, throwing out and filling into carts and carting to shoot, 5 ft. deep	per yd. cube	0	7	9
Add if stiff clay	,,	0	1	0
Add for every additional 5 ft.	,,	0	0	6
Add if in trenches	,,	0	0	9
Add to price of digging for breaking up concrete foundation and brickwork	,,	0	10	0
Return, fill and ram	,,	0	1	9
Fill into carts and cart away	,,	0	3	6
Planking and strutting to trenches	per ft. super	0	0	3½
Planking and strutting to sides of basement excavation next roadway	,,	0	1	4
Needling, flying and raking shores and removing after and carting away	per ft. cube	0	6	9
CONCRETOR.				
Portland cement and ballast concrete 1-6 in. foundations	per yd. cube	1	2	0
Add in underpinning in short lengths	,, ,,	0	6	0
Concrete in floors, ¾ in. aggregate, and sand, 1-2-4—				
4 in. thick	per yd. super	0	3	4
6 in. thick	,, ,,	0	4	8
Add if trowelled smooth	,, ,,	0	0	9
Add for hoisting, each floor	,, ,,	0	0	3
Concrete 1-2-4 in. beams and stanchions	per ft. cube	0	1	4
Concrete in lintols, with steel rod reinforcement each 4½ in. width and shuttering	,, ,,	0	4	0
1½ in. centering, with stout supports for concrete floors	per square	2	2	0
Do. to sides and soffites of beams	per ft. super	0	0	8
Do. to sides of stanchions	,, ,,	0	0	7
Steel rod reinforcement under ⅝ in. diameter, cut, bent and placed in position	per cwt.	1	8	0
Do. do. over ⅝ in. diameter	,,	1	5	0
BRICKWORK.				
Reduced to 1½ brick in flettons, lime mortar	per rod	26	0	0
Add for 2nd hard stocks	,,	8	0	0
Add for Blue Staffordshire	,,	22	0	0
Add to above if in 1-4 cement	,,	0	15	0
Add if in backing to stonework	,,	1	5	0
Add if in underpinning in cement	,,	4	10	0
Add if above 40 ft. to 60 ft. high	,,	2	0	0
SUNDRIES.				
Damp course in double course of slates, breaking joint	per ft. super	0	0	11
Vertical do. do.	,,	0	1	2
Bitumastic	,,	0	0	5
Lead core	,,	0	0	10
Cut, tooth and bond new to old brickwork	,,	0	1	0
Rake out joints of brickwork	,,	0	0	1
Leave chase for concrete floor	per ft. run	0	0	2
Cut chase 4½ in. deep for concrete floor	,,	0	1	2
Leave chase for vertical pipe	,,	0	0	4
Cut chase for vertical pipe	,,	0	1	4
Rake out joint for flashings and point	,,	0	0	2
Do. stepped do.	,,	0	0	4
Do. for asphalt skirting	,,	0	0	2
Build in ends of timbers	each	0	0	4
Do. steel joists up to 12 in. deep	,,	0	0	6
Do. step and make good facings	,,	0	1	6
Set and flaunch chimney pots	,,	0	7	6
Render fire openings	,,	0	2	0
Bed and point door frames one side	,,	0	3	0
Do. both sides	,,	0	4	6
Do. window frames, one side	,,	0	4	0
Setting only register grate	,,	1	0	0
Do. interior hearths and mantles	,,	1	15	0
Do. kitchen range, large	,,	5	0	0
Fix air brick and form flue	,,	0	2	0
Cut holes for pipes and make good facings, 9 in. wall	,,	0	2	0
Do. do. 13½ in. wall	,,	0	2	6
Do. large pipes and do. 9 in. wall	,,	0	3	0
Do. do. 13½ in. wall	,,	0	3	6
FACINGS.				
Extra for facings in Flemish bond for each 10s. per thousand over the price of Flettons	per ft. super		0	1½
Pointing facings to approval	,,		0	3
Arches extra over Flettons in stocks	,,		0	8
Do. in reds	,,		1	0
Do rubbed and gauged in putty	,,		5	9

PARTITIONS.		£	s.	d.
2 in. breeze slab partitions in cement	per yd. super		4	0
3 in. do do.	,,		4	6
2 in. hollow-tile do.	,,		4	9
3 in. do. do.	,,		5	6
PAVING.				
1 in. granolithic paving gauged 5—2	per yd. super		2	7
1¼ in. do. do.	,,		2	11
1 in. × 6 in. covered skirting	per ft. run		0	10
ASPHALT (NATURAL).				
½ in. horizontal damp course	per ft. super		0	6
⅝ in. horizontal damp course	,,		0	8
¾ in. vertical do. in two layers	per yd. super		9	6
½ in. in flats, two layers	,,		6	0
Angle fillet	per ft. run		0	3
6 in. skirting and angle fillet and jointing top edge	,,		1	0
DRAINAGE.				
Excavate, trench for drain and throw out, return, fill and ram, and including any planking and strutting required, and cart away surplus earth per ft. run	1 ft. deep	0	5	
	2 ft. deep	0	10	
	3 ft. deep	1	3	
	4 ft. deep	1	8	
	5 ft. deep	4	2	
	6 ft. deep	5	0	
	7 ft. deep	5	10	
	8 ft. deep	6	8	
4 in. best quality glazed stoneware drain pipe, socketed joints, yarn and neat cement, on and including cement concrete bed, 18 in. wide and 6 in. thick, and benched up on each side of pipe	per ft. run		2	4
6 in. do. do. do. but concrete bed 20 in. and 6 in. thick	,,		3	0
9 in. do. do. do. but concrete bed 23 in. wide and 6 in. thick	,,		4	11
Extra for 4 in. bends	each		2	6
Do. 6 in. ,,	,,		3	6
Do. 9 in. ,,	,,		5	6
Extra for 4 in. junctions	,,		2	9
Do. 6 in. ,,	,,		3	9
Do. 9 in. ,,	,,		6	0
4 in. stoneware gully, encased in concrete and making good granolithic paving	,,		13	0
6 in. do.	,,		14	0
9 in. do.	,,		18	6
4 in. stoneware interceptor, and surround with concrete	,,	1	5	0
6 in. do.	,,	1	10	0
9 in. do.	,,	2	10	0
IRON DRAINS.				
4 in. C.I. drain and laying and jointing in molten lead	per ft. run		3	4
6 in. do. do.	,,		5	0
Extra for 4 in. bends	each		10	0
Extra for 6 in. bends	,,		18	0
Extra for 4 in. junctions	,,		17	6
Extra for 6 in. junctions	,,		30	0
MASON.				
Bath stone and all labour, fixed	per ft. cube		10	9
Portland stone and all labour, fixed	,, ,,		17	9
York stone templates, fixed	,, ,,		12	6
York stone steps, fixed	,, ,,		16	0
York stone cills, fixed	,, ,,	1	2	0
SLATER.				
24 × 12 Bangor slates laid to 3 in. lap secured with zinc nails	per square	3	18	6
20 × 10 do.	,,	3	13	6
16 × 8 do.	,,	3	11	6
Extra to eaves course	per ft. run		0	9
Extra to top edge and square abutments	,,		0	4½
Extra to verge and labour only, bedding and pointing	,,		0	7½
Raking, cutting and waste	,,		0	7
Half-round red ridge tile	,,		1	2
Half-round blue ridge tile	,,		1	8
Fixing only soakers	per dozen		0	9
Red hand-made sand-faced tiles laid to 4 in. gauge, nailed every fifth course with galvanised iron nails	per square	3	0	0
Extra to eaves course	per ft. run		0	5
Extra to top edge and square abutments	,, ,,		0	3½
Extra to verge and bed and point	,, ,,		0	11
Half-round ridge	,, ,,		1	4
Bonnet hips, including cutting and waste (both sides)	,, ,,		0	8
Valley tiles, including cutting and waste (both sides)	,, ,,		3	6
Fixing only soakers	per dozen		0	9

CURRENT PRICES FOR BUILDING WORK IN LONDON.—continued.

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per ft. cube	4	0
Do. joints	,, ,,	4	6
Do. roofs, etc.	,, ,,	5	3
Do. trusses	,, ,,	6	9

		¾in.	1in.	1¼in.
Deal rough close boarding	per sq.	32/-	38/-	47/-
Battens for slating	,,	10/-	11/-	12/-

		s.	d.
Centre for arches	per ft. super	1	6
Gutter boards and bearer	,, ,,	1	0

FLOORING.

		¾in.	1in.	1¼in.	1½in.
Deal edges shot	per sq.	—	41/-	49/-	58/-
Do. tongued and grooved	,,	—	46/-	55/-	67/-
Do. matchings	,,	42/-	47/6	—	—
Moulded skirtings, including backings and grounds	per ft. super	1/4	1/7	1/9	2/3
Mitres	each	-/6	-/8	-/9	1/-
Stop ends	,,	-/3	-/4	-/4	-/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half in. moulded sashes	per ft. super	1	9
Two in. do. do.	,, ,,	2	0
Add for fitting and fixing	,, ,,	0	2
Deal cased frames, 1 in. linings, 1½ in. pulley and stiles, 2 in. moulded sashes, in squares, hardwood cill, double hung with pulleys, lines and weights, average size	,, ,,	3	3

DOORS.

		1½in.	1¾in.	2in.
Two-panel square framed	per ft. super	2 1	2 3	2 5
Four-panel do.	,, ,,	2 4	2 6	2 9
Two-panel moulded both sides	,, ,,	2 6	2 9	2 11
Four-panel do. do.	,, ,,	2 9	2 11	3 2

		£	s.	d.
Flush doors. 1½ in. to 2 in. finished thickness skeleton core, covered each side with Columbian pine ply, solid pine edging, 2 ft. 6 in. by 6 ft. 6 in.	each	1	15	0
Do., covered with Gaboon mahogany ply, solid mahogany edging, 2 ft. 6 in. by 6 ft. 6 in.	,,	2	0	0
Solid core, all as first item	,,	2	0	0
Solid core, all as second item	,,	2	5	0
Shaped peep holes, 4 sided	,,	0	5	0
Hexagonal holes	,,	0	6	0
Circular holes	,,	0	7	0

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per ft. cube	12	0
Hardwood do. do.	,, ,,	36	0

		1in.	1¼in.	1½in.
Plain deal jamb linings, framed	per ft. super	1 7	1 8	1 11
Deal shelves and bearers	,, ,,	1 2	1 4	1 7
Add if cross-tongued	,, ,,	-/2	-/2	-/2
Deal window board, tongued to oak cill and bearers	,, ,,	1 6	1 9	2 0
Deal moulding, tongued and grooved to window board	per ft. run			0 6

SUNDRIES.

		s.	d.
Deal architrave, including mitres per sectional inch.	per ft. run	0	1
Glazing beads, deal fixed	,, ,,	0	2
Do. fixed with brass screws and cups	,, ,,	0	4
Rebate	,, ,,	0	0½
Groove	,, ,,	0	0½
Notching	,, ,,	0	2
Tongued and grooved angle	,, ,,	0	3½
Rounded heel and hollow	,, ,,	0	2½

STAIRCASES.

		1in.	1¼in.	1½in.	2in.
Deal treads and risers on and including rough brackets	per ft. super	2/-	2/3	2/8	—
Deal strings, wrot and framed	,, ,,	—	—	2/2	2/8
Housings	each				0 9
Mahogany handrail, average 3 in. x 3 in.	per ft. run				5 6
Add if ramped	,, ,,				11 0
Add if wreathed	,, ,,			1	2 0

FIXING ONLY IRONMONGERY.

	s.	d.
Barrel bolts	0	8
Sash fasteners	1	0
Casement fasteners	1	2
Casement stays	1	2

FIXING ONLY IRONMONGERY—*Continued.*

	£	s.	d.
Flush bolts		1	6
Cupboard locks		1	6
Rim locks and furniture		2	0
Mortice locks and furniture		4	0
Floor springs, including oil	1	0	0
Overhead springs		5	0

FOUNDER AND SMITH.

		£	s.	d.
Rolled steel joists	per cwt.	1	1	0
Compound girders	,,	1	4	0
Stanchions	,,	1	6	0
Roofwork	,,	1	12	0

RAINWATER GOODS.

		3 in.	4 in.	5 in.	6 in.
Half-round eaves gutters and fixing	per ft. run	1/3	1/4	1/10	1/11
Ogee do. do.	,, ,,	1/5	1/6	2/1	2/9
R.W. pipe and fixing	,, ,,	1/7	2/1	—	—
Extra for shoes and bends	each	3/3	4/6	—	—
Do. stopped ends	,,	1/3	1/7	2/-	3/-
Do. nozzles and angles	,,	2/7	3/-	4/2	4/8

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	46	0
Do. in flats	,,	45	0
Extra labour and solder in cesspools	each	6	0
Welt joint	per ft. run	0	4
Soldered seam	,, ,,	1	6
Copper nailing—close	,, ,,	0	3
Do. do. open	,, ,,	0	2
Soldered dots	each	2	0
Bossed ends to rolls	,,	0	6

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	4in.
Lead overflow per ft. run	-/10½	1/3	1/9	2/1	2/6	3/2	—
,, service ,,	1/4	1/11	3/7	3/7	4/4	5/9	—
,, soil ,,	—	—	—	—	—	—	7/-
Bends in pipe each	—	—	—	—	2/-	2/3	5/6
Wiped solder joints ,,	2/-	2/6	2/9	3/3	3/6	4/3	6/-
Lead traps and cleaning screws ,,	6/6	9/6	—	—	—	—	—
Stopcocks and joints ,,	11/6	14/6	18/6	—	—	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yd. super	2	0
Do. narrow widths	per ft. super	0	4
Do. and set with Sirapite	per yd. super	2	3
Do. narrow widths	per ft. super	0	4
Do. and set with Keenes	per yd. super	3	0
Do. narrow widths	per ft. super	0	5½
Add sawn lathing	per yd. super	1	4
Add metal lathing (not including hangers or runners for suspended ceilings)	,, ,,	2	4
Portland cement screed	,, ,,	1	7
Do. plain face	,, ,,	3	3
Mouldings in plaster	per 1 in. girth	0	1½

GLAZIER.

		s.	d.
24 oz. sheet	per ft. super	0	7½
26 oz. sheet	,, ,,	0	8
24 oz. Obscured sheet	,, ,,	0	8½
Double Cathedral	,, ,,	0	9½
Majestic	,, ,,	0	10
Flemish	,, ,,	0	10
Pinhead Morocco	,, ,,	0	10
¼ in. rough rolled or cast plate	,, ,,	0	10½
¼ in. wired cast plate	,, ,,	1	1½

PAINTER.

		s.	d.
Preparing and distempering, two coats	per yd. super	0	7½
Knotting and priming	,, ,,	0	7
Plain painting, one coat	,, ,,	0	9
Do. two coats	,, ,,	1	2
Do. three coats	,, ,,	1	9
Do. four coats	,, ,,	2	4
Graining	,, ,,	2	3
Varnishing, twice	,, ,,	1	9
Sizing	,, ,,	0	3
Flatting	,, ,,	0	7
Enamel	,, ,,	1	1
Wax polishing	per ft. super	0	6
French polishing	,, ,,	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

PRICES CURRENT OF MATERIALS*

Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry.

CHANGES OF THE WEEK.—Turps Advances 2d., Lead 25s. and White Lead, ground and paint, £1.

BRICKS, &c.

Delivered to site, City and Central Area, Full Lorry Loads: £ s. d.

Best Stocks 4 15 0
Second Hard Stocks 4 8 0

Per 1,000. Delivered at London Goods Stations.

2½ in. Phorpres	King's Cross Station. per 1,000. s. d.	To sites in W.C. District. per 1,000. s. d.
Pressed bricks	46 3	50 6
Cellular bricks	46 3	50 6
Keyed bricks	48 3	52 6
Cellular Keyed bricks	48 3	52 6
Rustic bricks	*66 3	*70 6
Cellular Rustic bricks	*66 3	*70 6
Single Bullnose	64 3	68 6
White bricks	*66 3	*70 6
Sandfaced bricks	—	75 6

* Subject to a special discount of 2s. per 1,000 if accompanied by order for Pressed.

	£ s. d.
White Midhurst Facing Bricks (delivered London site)	4 0 0
Best blue Pressed Staffs	8 6 6
Do., Bullnose	8 16 6
Blue Wire Cuts	7 4 0

Best Stourbridge Fire Brick :—

£ s. d.		£ s. d.
2½ in. 7 15 0	3 in.	8 15 0

GLAZED BRICKS —

Best White Ivory and Salt Glazed	D'ble Str'tch'rs	32 10 0
	D'ble Headers	29 10 0
Stretcher 24 0 0	One side & two ends	33 10 0
Headers 23 10 0	Two sides & one end	34 10 0
Quoins, Bullnose	Splays and	
and 4½ in. Flats 30 10 0	Squints	31 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

2" per yd. sup..	2 3	3" per yd, sup. ..	2 9
2½" " " ..	2 6	4" " "	3 1

CLINKER CONCRETE.

2" per yd. sup..	1 6	3" per yd. sup ..	2 0
2½" " " ..	1 8	4" " "	2 4

CRANHAM TERRA COTTA.

2" per yd. sup..	3 0	3" per yd. sup. ..	3 8
2½" " " ..	3 6	4" " "	4 7

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2½"	2 9	12" x 9" x 4"	3 9

Per yard super d/d. Free on site, London.

	s. d.	
Thames Ballast	7 3	per yd.
Pit Ballast	6 3	" "
Pit Sand	7 9	" "
Washed Sand	8 3	" "
¾ in. Shingle	7 3	" "
¾ in. Broken Brick	11 3	" "
Pan Breeze	8 3	" "

delivered 2 miles radius Paddington.

CEMENT.

Best British Portland Cement. Standard Specification delivered London Area in jute sacks (11 to ton), or paper bags (20 to ton) free (non-returnable) :— £ s. d.

4 ton loads and upwards site .....Per ton	2 2 0
1 ton to 4 tons site	2 4 0
Alongside Vauxhall in 80-ton lots	1 18 0

"Ferrocrete" Rapid Hardening Cement :—

4 ton loads and upwards site	2 8 0
1 ton to 4 tons site	2 10 0
Alongside Vauxhall in 80-ton lots	2 4 0

Stored in Reserved Bins at Works 1/6 ton extra.

NOTE.—Jute sacks are charged 1s. 6d. each and credited 1s. 6d. nett, if returned in good condition within three months, carriage paid.

"Aquacrete" Water Repellent, "Blue Circle" Cement, 30/- per ton extra on ordinary "Blue Circle" Portland Cement prices.

"Colorcrete" Nos. 1 and 2 Coloured Rapid Hardening Portland Cement in 1-cwt. paper bags free (non-returnable) in 2-ton lots and upwards site 3 9 0

"Snowcrete" White Portland Cement in 1-cwt. paper bags free (non-returnable) 1 ton and upwards site 8 15 0

Super Cement (Waterproof) paper bags free. ...	3 12 0
Roman Cement	6 15 0
Parian Cement	6 0 0
Keene's Cement, White	6 0 0
" " Pink	5 12 6

Cementone Colours for cement according to tints per cwt. from £2 16s. 0d.

PLASTER.

£ s. d.		£ s. d.
Coarse, Pink 3 2 0	Sirapite, Coarse	3 10 6
" White .. 3 12 6	" Finish ..	3 18 6
Pioneer 3 10 6		
Super Carbo 2 7 6	4-ton loads & over London	
Carbo Setting. ... 2 12 6	Area, paper bags free.	
Best Ground Blue Lias Lime 1 17 6	Grey Stone Lime	2 2 0
	Chalk Lime	2 2 0
Granite Chippings 1 12 0	Hair per cwt. ..	2 7 6

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d., if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in sacks 37s. per ton at rly. dep.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 2 10½

BEER STONE—RANDOM BLOCK—

Free on rail at Seaton Station, per ft. cube..	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½

Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.

PORTLAND STONE—

	s. d.
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 5
Do. do. delivered on road waggons as above stations, per ft. cube	4 6
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.	

HOPTON-WOOD STONE—

F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P.ft.cb.	14 0
Sawn two sides.	22 6

HOPTON-WOOD STONE—

Sawn three or four sides.	27 9

YORK STONE, BLUE.—*Robin Hood Quality.*

Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super)	per ft. super	5 0
6 in. rubbed two sides, ditto ..	"	5 6
5 in. sawn two sides slabs (random sizes)	"	2 3½
4 in. to 2½ in. sawn one side slabs (random sizes)	"	1 6½
1½ in. to 2 in., ditto	"	1 3½

HARD YORK—

Delivered at any Goods Station, London.

Scappled random blocks.	Per ft. cube	6 3
6 in. sawn two sides landings to sizes (under 40 ft. super)	per ft. super	5 1½
6 in. rubbed two sides, ditto ..	"	6 1½
4 in. sawn two sides slabs (random sizes)	"	3 1½
3 in. ditto ditto	"	2 5
2 in. self-faced random flags. ...	Per yd. super	7 6

CAST STONE.

Delivered in London area in full van loads, per ft. cube : Plain, 7s. 6d. Moulded, 8s. 6d. Sills, 10s. 0d.

HARD WOOD.

1 INCH AND UP THICK.

	£ s. d.
Average price for prime quality.	
Dry Austrian Wainscot, per ft. cube	0 16 0
Dry American and/or Japanese Figured Oak, per ft. cube ..... 10 0 to	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube.	0 11 6
Dry sq. edged Honduras Mahogany, per ft. cube.	0 15 0
Dry log-cut Honduras Mahogany, per ft. cube. ..... 12 6 to	0 16 6
Dry Cuba Mahogany, per ft. cube.	1 1 0
Dry Teak, per ft. cube.	0 14 0
Dry American Whitewood, per ft. cube. ...	0 10 6
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt. ..... 4 7 0 to	5 10 0

SOFT WOOD.

GOOD BUILDING DEAL.

Inches.	Per stan.	Inches.	Per stan.
4 ×11	£28 10	3 × 6	£23 10
4 × 9	28 10	3 ×11	27 10
4 × 8	25 10	2 ×11	27 10
4 × 7	25 10	3 × 9	24 10
3 × 8	23 10	2½ × 9	24 10
3 × 7	23 10	3 × 4½	23 10
2½ × 7	23 10	3 × 4	23 10

PLANED BOARDS.

1 × 11.	£28 10	1 × 9	£26 10

PLAIN EDGE FLOORING.

Inches.	Per sq.	Inches.	Per sq.
⅝	18/-	1½	30/-
¾	21/-	1¾	37/6
1	23/6		

HUDDERSFIELD
Building Society

Experience has shown that the arrangements made by the Huddersfield to assist occupier borrowers have given the utmost satisfaction, and the service rendered has been greatly appreciated by builders' clients.

Write for information to The Huddersfield Building Society, Britannia House, 203, Strand, London, W.C.2, or to the Head Office, Britannia Buildings, Huddersfield. Andrew Stewart, C.A., Managing Director

WHEN YOU INVEST—A HOUSE IS BEST

TONGUED AND GROOVED FLOORING.

Inches.	Per sq.
1	24/-
1¼	31/-
1½	38/6

MATCHING (BEST).

Inches.	Per sq.
⅝	19/-
¾	21/-
1	27/6

ins. BATTENS.	s. d.
¾ × 2 per 100 ft.	2 8

SAWN LATHS. s. d.
Per bundle 2 5

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	31 5 0	18 by 10	16 10 0
22 by 12	26 5 0	18 by 9	14 17 6
22 by 11	23 12 6	16 by 10	14 7 6
20 by 12	23 2 0	16 by 8	11 6 0
20 by 10	20 15 0		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons .....Per 1,000 f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district		£4 2 6
ditto hand-made ditto		4 17 6
Ornamental ditto		5 2 6
Hip and valley tiles (per dozen)	Hand-made	0 8 6
	Machine-made	0 8 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

R.S. Joists, cut and fitted.	£17 10 0
Plain Compound Girders	20 10 0
" " Stanchions	22 10 0
In Roof Work	27 10 0

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	18 5 0	⅞ in. to 1⅛ in.	16 15 0
⅜ in.	17 5 0	1¼ in. to 2½ in.	16 5 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £10 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars. Sizes. ⅛ in. to ⅜ in.	Standard Wrot. Mild Steel Tubes and Tubulars. Sizes. ½ in. to 2 in.	Standard Flanges. Sizes. ½ in. to 2 in.	Standard Fittings.
	%	%	%	%
Gas	55	60	57½	53½
Water	52	57½	57½	50
Steam	48½	53½	46½	45
Galv. gas..	45	50	46½	43½
Galv. water	40	45	38½	38½
Galv. steam	33½	38½	33½	35

C.I. HALF-ROUND GUTTERS—London Price ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/9½	1/4½	5½d.
3½ in.	2/1	1/6	6½d.
4 in.	2/1	1/8	8d.
4½ in.	2/2½	1/11	10½d.
5 in.	2/4½	2/-	1/0½
O.G. GUTTERS.			
3 in.	2/1	1/10	8½d.
3½ in.	2/3½	1/10	9½d.
4 in.	2/5	1/11	10½d.
4½ in.	2/6	2/2½	1/0½
5 in.	2/10	2/6½	1/2½

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles, stock angles.	Branches, stock angles.
2 in.	2/8½	1/8	2/5½
2½ in.	2/9½	1/11	2/11½
3 in.	3/8	2/4½	3/7
3½ in.	4/1	2/10½	4/1½
4 in.	4/9½	3/5	5/-

Less 20 per cent. trade discount.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Stock.

	Pipe.	Bends, stock angles, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts...	3 5	2 5	2 11
2½ in. " ..	3 10	2 8	3 8
3 in. " ..	4 2	2 11	4 4
3½ in. " ..	4 7	3 8	5 0
4 in. " ..	5 0	4 0	5 10

L.C.C. COATED DRAIN PIPES.—London Prices ex Stock.

	Pipe.	Bends, stock angle, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9 ft. lengths	4 9	5 4	8 9
4 in. " 1 1 20..	6 9	6 3	11 0
5 in. " 1 2 22..	8 4	11 0	16 11
6 in. " 2 0 6 ..	10 0	12 10	21 3

Gaskin for jointing 45/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 15 0	to	14 15 0
Staffordshire Crown Bars— Good merchant quality. ...	15 10 0	to	17 0 0
Staffordshire Marked Bars ..	18 0 0	..	19 0 0
Mild Steel Bars.	13 10 0	..	14 10 0
Steel Bars, Ferro-Concrete quality, basis price	15 0 0	..	16 0 0
Hoop iron, basis price	15 0 0	..	16 0 0
" Galvanised	25 0 0	..	27 0 0

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*Contd.*)

IRON— Per ton in London.

	£ s. d.	£ s. d.
Soft Steel Sheets, Black—		
Ordinary sizes, to 20 g. ..	17 5 0 ..	18 5 0
„ „ 24 g. ..	18 5 0 ..	19 5 0
„ „ 26 g. ..	19 5 0 ..	20 5 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	18 10 0 ..	19 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g. ..	20 10 0 ..	21 10 0
No. 1 quality £4 per ton extra.		
Flat and Galvanised Corrugated Sheets—		
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	20 0 0 ..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g	20 20 0 ..	23 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g	22 10 0 ..	24 10 0
Sheets, Galvanised, Flat Best quality—		
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	21 0 0 ..	24 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	22 0 0 ..	24 10 0
Best Soft Steel Sheets, 26 g.	24 10 0 ..	25 10 0
Cut Nails, 3 in. to 6 in. ..	19 10 0 ..	21 10 0
(Under 3 in. usual trade extras.)		

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	1 3
Strong sheet	„	1 3½
Thin	„	1 4½
Copper nails	„	1 3½
Copper wire	„	1 3½

PLUMBERS' BRASS WORK.

Delivered in London.
Stamped by Met. Water Board.

CRUTCH HEAD SCREW DOWN BIB COCKS FOR IRON. EASY CLEAN.
½ in. ¾ in.
32/- 47/- per doz.

CHROMIUM PLATED TOILET SCREW DOWN BIB COCKS FOR IRON. EASY CLEAN.
½ in. ¾ in.
42/- 61/6 per doz.

SCREW DOWN STOP COCKS FOR IRON.
½ in. ¾ in. 1 in. 1¼in. 1½in. 2 in.
27/6 42/6 75/- 131/- 264/- 409/- per doz.

SCREW DOWN STOP COCKS WITH TWO UNIONS FOR LEAD.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
46/6 68/6 106/- 205/- 307/- 590/- per doz.

DOUBLE NUT BOILER SCREWS.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
7/6 10/6 16/- 29/- 39/- 56/- per doz.

HEAVY CROYDON BALL VALVES.
½ in. ¾ in. 1 in. 1¼ in. 1½ in.
36/- 59/6 96/- 205/- 278/- per doz.

CAPS AND SCREWS.
1¼ in. 1½ in. 2 in. 3 in. 3½ in. 4 in.
10/- 12/- 18/6 32/- 44/- 48/- per doz.

BRASS FERRULES OR SLEEVES.
1½ in. 2 in. 3 in. 3½ in. 4 in.
10/- 12/6 22/6 31/- 45/6 per doz.

DRAWN LEAD TRAPS WITH BRASS CLEANING SCREWS.
1¼ in. 1½in. 2 in. 3 in.
8 lb. Lead P. . . 24/6 32/6 49/- 72/- per doz.
8 lb. Lead S. . . 29/6 38/6 59/- 93/- per doz.

SOLDER.—Plumbers' 1/2; Tinmen's, 1/4; Blow-pipe, 1/7 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil, in pipes	per gallon	0 3 0
„ „ „ in barrels	„	0 3 2
„ „ „ in drums	„	0 3 4
Boiled „ „ in barrels	„	0 3 5
„ „ „ in drums	„	0 3 7
Turpentine, in barrels	„	0 3 2
„ in drums (10 gals.) ..	„	0 3 4
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.)		51 0 0

Extra for 1-cwt kegs over 5-cwt. casks is 2/9 cwt.

GENUINE WHITE LEAD PAINT.
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Pauls," "Morganwyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots per ton delivered £ s. d. 70 0 0

Red Lead, Dry (packages extra)	per ton	42 0 0
Best Linseed Oil Putty	per cwt.	0 14 9
Size. XD quality	fkn.	0 3 6

VARNISHES, &c.

		Per gallon.
Oak Varnish	Outside	0 14 0
Fine Do.	Do.	0 16 0
Fine Copal	Do.	0 18 0
Pale Copal	Do.	1 0 0
Pale Opal Carriage	Do.	1 4 0
Best Do.	Do.	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	Do.	0 18 0
Fine Copal Cabinet	Do.	1 2 0
Fine Copal Flatting	Do.	1 0 0
Hard Drying Oak	Do.	0 18 0
Fine Hard Drying Oak	Do.	0 19 6
Fine Copal Varnish	Do.	1 0 6
Pale Do.	Do.	1 12 0
Best Do.	Do.	1 2 6
Best Japan Gold Size		1 12 6
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent)		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers in Terebene		0 9 0
Cuirass Black Enamel		0 7 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY AND SELECTED GLAZING QUALITY.

	per ft. super.		per ft. super
18 oz. O.Q.	2½d	32 oz. O.Q.	6d.
18 „ S.Q.	2¾d.	32 „ S.Q.	6½d.
24 „ O.Q.	3½d.	Obscured Sheet, 18 oz.	3d.
24 „ S.Q.	3¾d.	„ „ 24 „	4½d.
26 „ O.Q.	3¾d.	Fluted ..... 21 oz.	9d.
26 „ S.Q.	4½d.	Em'lld 18 oz., 5½d., 24 oz.,	6½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

	Per ft.
Rolled plate, ¼ in.	5½d.
Rough cast double rolled, ⅜ in.	6½d.
Rough cast double rolled, ½ in.	6½d.
Figured rolled, etc., white	6½d.
Figured rolled, etc., tinted	9½d.
Rolled Sheet	6d.
White rolled cathedral	6d.
Tinted rolled cathedral	8½d.

Rolled plate is the same price as rough cast double rolled.

	Per ft. s. d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	0 10½
Wire Rolled, ¼ in. thick	0 9½
Wired Cast, ¼ in. thick	0 9½
"Calorex" Sheet, 21 oz.	0 6½
„ 32 oz.	2 6
„ Cast, ¼ in. thick	4 0
„ „ ⅜ in. thick	0 10
„ „ ½ in. thick	1 0
	1 2

"VITA" GLASS.

Clearsheet—not exceeding 1 foot	1 0
Do. do. 2 feet	1 3
Polished plate not exceeding 1 foot	1 9
Do. do. 2 feet	1 6
Cathedral—not exceeding 1 foot	3 0
Do. larger sizes	1 0
Horticultural Sheet and Cathedral "Vita" Glass. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1 6
3/16 in. Wired Georgian Design. Sizes up to 96 inches long by up to 24 inches wide	1 0
	2 3

LEAD, &c.

	Per ton, £ s. d.
(Delivered in London.)	
LEAD.—Sheet, English, 4 lb. and up	25 5 0
Pipe in coils	24 15 0
Soil pipe	30 5 0
Compo pipe	32 0 0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton £15 0 0

THE SCOTTISH BUILDER

NEW BUILDINGS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Where business representatives cannot be seen personally at this stage, this should be mentioned. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

ABERDEEN.—POOL.—The Links and Parks Committee of the T.C. decided to recommend adoption of a scheme for an open-air bathing pool, estimated to cost about £50,000.

ABERDEENSHIRE.—HOUSES.—The C.C. are to erect 28 at Waterton, Bankhead. The architects are Messrs. Walker and Duncan, 3, Golden-square, Aberdeen.

ARBROATH. — HOUSES. — The T.C. approved a plan of a proposed lay-out of ground between Millgate Loan and Hope-street, for the erection of 42 houses, and also a plan of a proposed two-storey block of six houses for a site at the old shipbuilding yard at the harbour.

AYR.—ICE RINK.—Plans were passed at the Dean of Guild Court for an ice-skating and curling rink, to be established in Beresford-terrace, at £50,000.

AYR.—HOUSES.—The T.C. are to erect 42 houses in Mill-street.

BLACKHALL.—GARAGE.—Plans have been prepared for Messrs. William Wood by Messrs. W. N. Thomson and Co., 52, Leith-walk, Leith, Edinburgh, for a new public garage, workshops, petrol station and other offices, in Queensferry-road and Maidencraig-crescent.

BLAIRGOWRIE. — RECONSTRUCTION.—The T.C. have decided to appoint an architect to prepare plans for the reconstruction of the public hall.

BURNTISLAND.—HOUSES.—The T.C. resolved to erect another 60 houses, and to proceed immediately to make necessary arrangements.

CAMPBELTOWN.—POOL.—The T.C. have approved of a scheme for a municipal swimming pool and gymnasium, at £20,000.

DOUGLAS.—HOUSES.—Plans are to be prepared for 66 houses. The architect is Mr. William Brown, Lanarkshire County Architect, Clydesdale-street, Hamilton.

DUNDEE. — BUILDINGS. — The following plans have been lodged at the office of the City Engineer: Balgillo-road—bungalows, for the Rockwell Building Co., Ltd.; Dock-street—alterations, for the directors of Cat and Dog Clinic, architect Robert Gibson, 2, India-buildings; Kingsway East and Longtown-road—hall, for trustees of Scottish Episcopal Church, architects Gauldie, Hardie and Sharpe, 26, Commercial-street; Kingsway-place—bungalows, for Albert Thain, Ltd.; Murraygate—alterations, for J. Hepworth and Son, Ltd., architects Mills and Shepherd, 9, South Tay-street; Small's Wynd—hall, for Robert G. Deasley.

EDINBURGH.—HOUSES.—The T.C. are to erect 40 houses at the Hawkhill housing area. The architect is Mr. E. J. MacRae, F.R.I.B.A., City Architect.

EDINBURGH.—OFFICES.—Plans are to be prepared by Mr. E. J. MacRae, City Architect, for new £14,000 departmental offices and banqueting hall near the High-street.

EDINBURGH. — SCHOOL. — Plans were passed for a new primary school at Sighthill Loan. The building will cost £45,000.

ELLON.—ADDITIONS.—The Aberdeenshire C.C. are to carry out additions to the High School.

FORTH.—HOUSES.—Plans to be prepared for 98 houses on Harwood and Wilsontown sites. Mr. William Brown, Lanarkshire County Housing Architect, Clydesdale-street, Hamilton, prepared the plans.

GLASGOW.—BUILDING.—The Dean of Guild Court has passed the following plans: Corporation Baths Department, baths at Glasgow-green; Montague Burton, Ltd., Hudson-road Mills, Leeds, to demolish existing buildings at 182-184, Argyle-street and

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from April 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A¹	A²	A³	B	B¹
Craftsmen	1/8	1/7½	1/7	1/6½	1/6	1/5½
Labourers	1/2½	1/2½	1/2	1/1½	1/1	1/0½

Aberdeen	A	East Fife (embraced by a line from Largs to Kingsbarns and eastward to the Coast)	B	Hamilton	A	Perthshire	A
Ayrshire	A			Inverness	*	Peterhead	A
Banff	B			Inverurie	A¹	Renfrewshire	A
Berwickshire	A²			Kincardineshire	A²	Rothesay	A
Bridge of Allan	A	East Lothian	A	Kinross-shire	A	Roxburghshire	A¹
Broughty Ferry	A	Edinburgh	A	Lanarkshire	A	St. Andrews	A
Clackmannanshire	A	Fifeshire (with the exceptions of towns in East Fife which are under Grade B)	A	Mid-Lothian	A	Selkirkshire	A¹
Doune	A			Monifieth	A	Stewartry	A¹
Dunblane	A			Moray and Nairn	B	Stirlingshire	A
Dumbartonshire	A			Newport	A	Stornoway	A¹
Dumfriesshire	A¹	Forfarshire	A	Peeblesshire	A²	Tayport	A
Dundee	A	Glasgow	A	Perth	A	West Lothian	A
Duncon	A	Greenock	A				

*This town has its own rates: Masons, 1/6; Carpenters, 1/6; Slaters, 1/6; Plumbers, 1/6; Plasterers, 1/6; Painters, 1/6; and Labourers, 10d. to 1/-.

The information given in this table is copyright. The rates of wages in England and Wales are given on page 632.

1-17, Union-street, and to erect an hotel and several shops on the site; Royal Technical College, 204, George-street, to demolish existing buildings, and to erect an addition to the college in John-street; White Horse Distillers, Ltd., 120, St. Vincent-street, warehouse at Borron-street; Barry, Ostlere and Shepherd, Ltd., 110, Brunswick-street, warehouse at 132, George-street; King's Park Baptist Church, hall and classrooms in Ashcroft-drive; Empire Exhibition, International Wool Pavilion and an Australian Pavilion at Bellahouston Park, Glasgow.

GRANGEMOUTH. — EXTENSIONS. — The Dean of Guild Court has granted permission to Messrs. Scottish Dyes, Ltd., for extensions to the factory, at £3,620.

GREENOCK.—WORKSHOP.—The Dean of Guild Court has granted warrant to Scotts' Shipbuilding and Engineering Co., Ltd., for the erection of a new electrical workshop and store near the firm's graving dock. The building, which will be steel-framed and of three storeys, is estimated to cost £5,000.

GREENOCK.—RECONSTRUCTION.—Plans are to be prepared for reconstruction and additions to the Commercial Bank in Newton-street. Mr. James McCallum, architect, George-street, Edinburgh.

IRVINE. — EXTENSIONS. — The Dean of Guild Court has granted permission to the Irvine Shipyard Co. to carry out extensions to the sheet-metal shed, at £5.000.

KEITH.—SCHOOL.—The Banffshire C.C. are to erect a new primary school, at £10,000.

LEITH.—PREMISES.—Mr. James Johnstone, Charlotte-street, Leith, is preparing plans for business premises and workshops, in Great Junction-street.

LOCHGELLY.—HOUSES.—The T.C. agreed to consider again the Lumphinnans-road scheme. The architect and measurer are to be asked to prepare a lay-out and type plans for 92 four-roomed flatted-type houses.

MILNGAVIE.—BANK.—Plans prepared by Messrs. McCallin and Gordon, architects, George-street, Edinburgh, for new bank buildings, for the Commercial Banking Corporation, Ltd.

MOTHERWELL. — BUILDING. — Plans, totalling £10,680, for Motherwell and Wishaw T.C., were passed at a special sitting of the Dean of Guild Court. Plans were submitted by the Council for four four-apartment houses in North Orchard-street and Kirkland-street, Motherwell, at £1,800, and five houses in James-street, Motherwell, at £2,300. The Council was also given authority to erect in Steele-street and Academy-street, Wishaw, 12 houses, at £5,680. and a shop, at £250. Warrant was also granted to erect in Shields-road, with its junction with Range-road, Motherwell, an electricity substation, at £650.

MOTHERWELL.—SCHOOL.—Plans are to be prepared by Mr. John Stewart, architect, Albert-street, Motherwell, for a public school in the Wishaw area.

TENDERS ACCEPTED

Aberdeen.—Second section of the main drainage scheme, for T.C. :—*William Tawse, Ltd., Aberdeen.

Bankhead.—Public school. Watt & Stewart, architects and measurers, 214, Union-street, Aberdeen :—Excavation, brick and mason—*G. Duncan & Son, Inverurie. Joinery, carpentry and ironmongery—*R. & J. Hall, Ltd. Glazing, painting and decorative works, etc.—*A. Mackie. Plumber work and sanitary engineering, etc.—*P. Thomson. Reinforced concrete, plaster and lathing works, etc.—*Clark & Chapman. Slater work and roughcasting, etc.—*C. Stewart & Sons. Electrical fittings and installation, etc.—*A McRobb, Ltd. Heating engineering and installation, etc.—*G. N. Haden & Co., Ltd. Steel windows and casements, etc.—*Goodson & Bain, Ltd. Steel construction—*G. Bisset & Sons. Asphaltic roofing—*W. Briggs & Sons, Ltd., Dundee. (Remainder of Aberdeen.)

Castlebay.—Telephone exchange and other offices. Mr. J. Wilson Paterson, architect, George-street, Edinburgh :—Excavation, brick and building works, etc.—*W. J. Anderson, Ltd., Aberdeen.

Dumfries.—Hotel in English-street, for Mr. Joseph Girotti. Mr. John Easton, architect, West George-street, Glasgow :—Excavation, brick and mason—*Robinson & Davidson, Dumfries. Plumber work and sanitary engineering etc.—*P. Drummond & Son, Ltd., Dumfries.

Glasgow.—Excavation, brick and mason work at St. Teresa school, for E.C. Mr. William McCaig, architect, Bath-street :—*J. H. Fleming, Strathavon, £5,102 8s. 9d.

Glasgow.—Reconstruction and extensions to the hotel in Botanic-crescent. Messrs. Barnet & Boston, architects, Hope-street. Messrs. Allan & Sons, measurers, 147, Bath-street :—Excavation, brick and mason—*R. Rodgerson, Ltd. Joinery, carpentry and ironmongery—*Morris & Spottiswood. Plumber work and sanitary fittings—*W. Hendry. Plaster and lathing—*J. C. McIntyre. Heating engineering and installation—*J. L. Saunders & Co., Ltd. Electrical fittings and installations—*J. B. & J. A. Mathieson, Ltd. (All of Glasgow.)

Glasgow.—Reconstruction scheme on the central block of the Glasgow High School, for E.C. Mr. William McCaig, Education Architect, Bath-street, Glasgow :—Excavation, brick and mason—*J. Kirkwood & Smith Ltd., Govanhill, £35,467 10s. 5d. Joinery, carpentry and ironmongery—*Morris & Spottiswood, Ltd., Langside, £11,751 12s. 10d. Steel construction—*W. Baird & Son, Ltd., Anniesland, £3,829 18s. 9d. Plumber work and sanitary engineering, etc.—*McCulloch & Giffen, Ltd., £12,643 19s. Slater work and roughcasting, etc.—*J. McLaren, Ltd., £735 19s. 8d. Glazing and allied works, etc.—*J. Wilson & Sons, £667 18s. 11d. Asphaltic and allied works—*W. G Walker & Sons (Glasgow), Ltd., £1,167 9s. 8d. Tile, terrazzo and allied works—*Toffolo, Jackson & Co., £1,900 3s. 1d. Cupolo and pavement lights, etc.—*The Pennycook Patent Glazing and Engineering Co., Ltd., Bridgeton, £179 1s. 7d. Railings, gates and allied works, etc.—*W. Green & Son, Ltd., £1,653 19s. 1d. Plaster, lathing and granolithic works, etc.—*W. Forbes & Son, Ltd., £1,936 9s. 9d. (Remainder of Glasgow.)

Inverness.—Reconstruction scheme at the "Waverley Hotel" :—*Clark and Donaldson, Aberdeen (between £10,000 and £12,000).

Motherwell.—Gymnasium block, latrines and shelters at the St. Joseph's Catholic School. Mr. John Stewart, architect, Albert-street :—Excavation, brick and building—*Scott & Co., Dellburn, Motherwell, £2,321 3s. 3d. Joinery, carpentry and ironmongery—*Matthew Dick, Motherwell-Wishaw, £1,495 10s. 5d. Steel windows and casements, etc.—*J. Gibbons, Ltd., Wolverhampton, £209 11s. 9d. Glazing and allied works, etc.—*J. McLaren, Hamilton, £144 5s. Slater work and roughcasting, etc.—*W. Bannatyne, Ltd., Townhead, Hamilton, £240 6s. 9d. Plumber work and sanitary engineering, etc.—*McCulloch & Giffen, Garnethill, Glasgow, £700. Plaster work and lathing. etc.—*Baxter & Gillan, Motherwell-Wishaw, £393 8s. 7d. Asphalting work, etc.—*The Scottish Speedwell Asphalting Co., Ltd., Glasgow, £174 14s. 9d.

Oban.—Extensions to the "Royal Hotel" :—*Clark & Donaldson, Aberdeen (between £15,000 and £20,000).

Quarff.—Telephone exchange. Mr. J. Wilson Paterson, architect, George-street, Edinburgh :—Excavation, brick and mason—*W. I. Anderson, Ltd., Aberdeen.

NEW INVENTIONS

REMEDIES AGAINST DAMP AND EFFLORESCENCE.

We learn that a German chemist (Dr. R. Plischke) claims to have discovered a remedy against damp and efflorescence in building materials and paints, for which British patents have been applied for. They are three in number—Uni-Fluorate, Uni-Colour; and Uni-Liquid Cement. The first is a base coating for porous walls; the second a colour paint claimed to resist damp and prevent efflorescence (used in conjunction with Uni-Fluorate when applied to porous materials and bases); and the third, Uni-Liquid Cement, is principally a water-soluble calcium aluminium silicate which is applicable with a brush. It is claimed to penetrate the pores of brick or other material and subsequently to resist water.

The following claims are made for the products :—

"Uni-Fluorate" is a basic coating powder, which is ready for use when mixed with four parts of water. By means of a coating of "Uni-Fluorate," the pores of indoor and outdoor walls or of lime- and gypsum-plasterings, are closed. In the case of fresh cement or concrete walls, the free lime is bound together, and they can be brushed with colour at once. These coatings are rub-proof, and they abolish and prevent efflorescence, bacteria, moss and fungus growths, vermin, spiders, ants, algæ, etc.

"Uni-Liquid" cement is a water-soluble, silicate of calcium-aluminium, which, when applied, penetrates the pores, petrifies as it dries and becomes insoluble in water. It is a transparent, preventive coating for brickwork, lime, cement or gypsum plasterings, cement or concrete constructions, soft natural stones, *e.g.*, sandstone, marble. It tightens and hardens the pores and forms a mineral rub-proof, fire-proof, efflorescence-free, sterile, washable surface that protects the material. It may also be used with water as a mixing agent for mortar and renderings.

These materials are not on the English market, but details are obtainable from Mr. M. N. du Mont, 3, London Wall Buildings, London, E.C.2.

TRADE NEWS

Manchester Royal Infirmary: Electric Motors.

Bull Motors inform us that they supplied their super-silent electric motors for the Private Patients' Home, Manchester Royal Infirmary, illustrated in our issue of March 11.

St. Michael's Club House.

Messrs. A. Goldstein & Co. (Glass Merchants), Ltd., of 100, Westminster Bridge-road, S.E.1, inform us that they carried out the glazing for St. Michael's Club House, Elizabeth-street, Belgravia, S.W., illustrated in our last issue.

Tottenham Grammar School.

We are informed by Messrs. Geo. H. Hammer and Co., Ltd., craftsmen in woodwork, of Crown Works, Hermitage-road, Harringay, N.4, that they carried out the laboratory and science fittings for the Tottenham Grammar School, for the Middlesex County Council, illustrated in our issue of February 18.

New London Office Address.

The London office address of Messrs. Petters, Ltd., oil engine manufacturers, of Yeovil, has been transferred from Bush House, Aldwych, to Terminal House, 52, Grosvenor-gardens, London, S.W.1. Telegrams: "Escapable, Sowest, London." Telephone: Sloane 8258-9. Mr. A. P. Quarrell, who has been in the service of the company for many years, has been appointed the London manager.

Church of St. Cecilia.

The Croft Granite. Brick and Concrete Co., Ltd., of Croft, near Leicester, inform us that they have been instructed to supply all the reconstructed stone dressings for the new Church of St. Cecilia, Sharman Cross, Sheffield. The building contractors are Messrs. Thos. Wilkinson and Sons, Olive Grove Works, Midhill-road, Sheffield. 2. Mr. K. B. McKenzie, F.R.I.B.A., of Ablington, Bibury, Cirencester, is the architect.

A New Road Breaker.

A new type RB660 pneumatic road breaker has been recently developed by Broom and Wade, Ltd., High Wycombe. On a recent test in the London district, this new tool, which weighs 82 lb., has proved to be capable of breaking up rapidly heavy and hard concrete with an air consumption not exceeding 50 cub. ft. of free air per minute at 80 lb. pressure. The tool is of modern design and sturdy construction. The weight distribution is said to be such that the tool has a considerably lowered centre of gravity and is very easy to handle. It is claimed that the increased weight minimises vibration and keeps the tool down to work without pushing effort.

Home-grown Timber.

Messrs. John Sadd and Sons, Ltd., of Maldon, Essex, have issued an interesting booklet, "Home-grown Timber, its Uses in Art and Industry." It contains an informative description of the production of English hardwood, and describes the different varieties and their manifold uses for structural, decorative and miscellaneous commercial purposes. Messrs. John Sadd have been in the business over 200 years, and the benefit of their long experience of English timber is at the command of any who wish to avail themselves of it.

Boilers and Radiators.

Full particulars of the Beeston "Robin Hood" boilers and radiators for central heating and domestic boilers for hot water supply are contained in a neat, well-illustrated handbook issued by the Beeston Boiler Co., Ltd., Beeston, Nottinghamshire. Beeston domestic boilers are supplied in a wide range of sizes, both open and closed types, and it is claimed they will burn throughout the night without attention, and that they fit unobtrusively into any decorative scheme. It is also said that it is possible to heat two or three radiators and a towel rail from a domestic boiler which is installed a little larger than is necessary for hot water supply. Where more radiators are desired, the Beeston "Robin Hood Royal" boiler should be installed.

TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Wednesday morning.

* Denotes *accepted.*
† Denotes *Provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

List of abbreviations on page 618

Bath.—Works, for T.C.:—New fire station—*J. Long & Sons, Ltd., £23,046. New shop fronts at 18 and 19, Westgate-st.:—*A. Davies & Co. (Shopfitters), Ltd., £998. Reconstruction of the Sydney-gdns. Colonnade—*F. J. Amery & Sons, Ltd., £447 10s.

Battersea.—Works, for B.C.:—
Transformer house at Harrowby-rd.—
*Borough Surveyor £570
Resurfacing carriageway, Queen's-rd.—
*Works Department £32,595 5 5

Berkshire.—Professionals' houses at golf club. Hubert Lidbetter (F.), architect, 2, Verulum-bldgs., Gray's Inn, W.C.1:—

Gaze & Co., Kingston	£1,877 0
Langley & Co., Ltd.	1,727 0
Collier & Catley, Ltd., Reading	1,637 0
J. Corbett	1,482 16
Jarvis & Co., Ltd., Weybridge	1,475 0
‡R. O. Garrard, West Byfleet (Subject to revisions.)	1,427 0

Birmingham.—Block of modern offices in Waterloo-st., to be known as "Cavendish House," for Cavendish House (Birmingham), Ltd.:—
General contractors—*B. Whitehouse & Sons, Monument-rd.
Constructional steelwork—*Redpath, Brown & Co., Ltd., Temple-row.
Plastering—*Johnson & Co., Ltd., Manchester.
Plumbing—*J. S. Wright & Co.
Glazing—*Pearce & Cutler, Ltd.
Portland stone—*Bath & Portland Stone Firms, Ltd.
(Remainder of Birmingham.)

Birmingham.—Reconstruction of Warwick House in New-st., for Marshall & Snelgrove, Ltd.:—
General contractors—*Carlyle & Co., Ltd., Manchester.
Steelwork—*H. Young & Co., Ltd., Westminster.
Lifts—*Waygood Otis, Ltd.

Birmingham.—Drill hall, etc., stores and offices, Kingstanding-rd., Kingstanding, for 45th Royal Warwickshire Regiment Anti-Aircraft Battalion. Bateman's (F.), architects, 19, Bennett's Hill:—
*William Jackson (Langley Green), Ltd., Langley Green, Oldbury.

Bradford.—(*a*) Boiler house; (*b*) heating installation at Leeds-rd. Hospital; (*c*) electricity installation at nurses' home, St. Luke's Hospital; and (*d*) supply and erect creosoted wood fencing at Gibson-st. housing estate, for C.B.:—

(*a*) *F. Robinson & Sons, Bradford	£195
(*b*) *Sayes & Co., Ltd., Leeds	256
(*c*) *Smith & Croft, Bradford	234
(*d*) *Thompson & Co., Bradford	396

Brightlingsea.—Public convenience on Wear Marsh, for U.D.C.:—

Baker Brothers	£647 0 0
R. D. Angier	634 10 0
Blyth Bros.	629 15 0
*R. G. Nicholson	623 15 0
W. Ransom	557 16 9

Byfleet.—Wesleyan Church. Kenneth Wood & Chas. H. Rose (AA.), architects, Woking:—

—. Osman, Oxshott	£10,650
—. Crosby, Farnham	10,488
—. Jarvis, Weybridge	10,426
—. Jones, Woking	10,053
Grace & Marsh, Croydon	9,997
—. Gaze, Kingston	9,853
W. G. Tarrant, Byfleet	9,838
Smith Bros., Byfleet	9,675
‡R. O. Garrard, West Byfleet	9,405

Caernarvon.—80 additional houses, Ysgybor Goch housing scheme, for T.C.:—
*Williams & Williams, Caernarvon ... £30,660

Chester.—Works, for T.C.:—
Heat and ventilate Newton council school—
*C. Seward & Co., Ltd., Chester £1,575
26 four-bedroomed and 54 three-bedroomed houses on the Lache estate, including installation of electric plug points for electric fires, water heating and cooking—
*E. M. Bellis, Wallasey ..... £29,621 9 11.

Clutton.—Eight houses at Farrington Gurney, for R.D.C.:—
†Hockey & Plummer, Radstock £3,460

Cork.—Works at Bantry school, for E.C.:—
*Robert Kelly, Bantry £803

Croydon.—Works, for C.B.:—
Unclimbable iron fence along the southern boundary of the Parkfields sports ground—
*T. Blackburn & Sons, Iron Works, Preston £167 8
Redecorating the ceiling of the large bath at the Central Baths—
*Direct Labour £300
Sub-station in Lodge-ln., Addington—
*E. H. Smith (Croydon), Ltd. £1,395

Darlaston.—Parish hall, for Rev. T. Chadwick and Parochial Council of All Saints' Church:—
*Harrison Smith (Builders), Ltd., 471, Lichfield-rd., Birmingham £1,800

Darton.—38 houses, Kexborough housing estate. Plans by H. Hobson, Chief Sanitary Inspector, Council Offices:—*John Stothard & Sons, Pontefract-rd., Cudworth, nr. Barnsley, £13,650.

Dundalk.—56 houses, for U.D.C.:—
*T. McDonald & Sons £21,766

Dunstable.—Addition to administration block, Kensworth Isolation Hospital, for District Hospital Joint Committee. H. Pickering, M.Inst.M. and Cy.E., architect, 73, West-parade:—*Hardy & Parkins, 13, Richard-st., Dunstable, £766.

East Retford.—8 houses, at West Stockwith, 5 at Misson and 4 at Lound, for R.D.C. L. Tattersfield (L.), architect, 2, Market-sq.:—*King & Son, Thorne-rd., Edenthorpe, Doncaster. West Stockwith, £2,832 3s.; Misson, £1,906 3s.; Lound, £1,516.

Flint.—Additions and alterations to the Catherine Gladstone maternity home, Mancot, for Flintshire C.C. R. G. Whitley, County Architect and Surveyor, Mold:—
*G. H. Heywood, Ltd., Chester-rd., Whitby, Ellesmere Port £10,750

Glendale.—Eight houses at Lowick, for R.D.C.:—
*R. Carse & Sons, Ltd., Amble, £3,141.

Grays.—Repairs to Kilvert's Wharf, Grays, for Thurrock U.D.C.:—*Tileman & Co., Westminster. £273.

Grimsby.—Alterations and additions to "Ship" hotel, Flottergate, for Hewitt Bros., Ltd., Tower Brewery. Plans prepared in Architects' Department, Brewery Offices:—*Hewins & Goodhand, Ltd., Eleanor-st., Grimsby, £17,000.

Hendon.—Iron gates and balustrading at Edgware junior and infants' school, for T.C.:—*G. Wright (London), Ltd., £204 1s. 6d.

Heston and Isleworth.—Works, for T.C.:—Reconstruction of Twickenham-rd. from Percy House to Busch-corner—*S. Wimpey & Co., Ltd., Hammersmith, £13,669 11s. Handicraft room at Busch House open-air school—*W. J. Drinkwater & Son (Feltham), Ltd., £255 3s. 4d.

Hollingsworth.—Reconstruction and widening Millbrook Bridge, for Cheshire C.C. G. E. Ashforth, County Surveyor and Bridgemaster, Chester:—*W. Storrs, Sons & Co., Ltd., Aqueduct, Sawmills, Stalybridge, £12,499.

Hornchurch.—Works, for U.D.C.:—
40 houses, Ingrebourne-rd.—

Dektor, Ltd., Romford	£24,009 8
Joseph (Builders), Ltd., East Ham	22,765 0
Warriner (Builders), Ltd., Romford	22,152 0
Pavitt Bros., Ltd., Aveley	19,417 14
The Range Construction Co., Ltd., Chadwell Heath	18,634 0
W. M. Griffin, Hornchurch	17,429 6
Buckley, Son & Wyld, Ltd., Rainham	17,352 0
Mason Wackett, Ltd., Romford	16,966 0
Leggett & Partners, Ltd., Romford	16,984 0
W. E. Walsham, Ltd., Grays	16,780 0
F. E. Smith, Grays	16,779 10
J. E. Rippingale, Rainham	16,296 0
L. H. H. Clowes, Billericay	15,947 17
Wilson & Sutton, Wickford	15,500 0
*Cripps Bros., Ltd., Rochford	15,524 0

DON'T TENDER UNSUCCESSFULLY

SECURE CONTRACTS WITH

THE STEEL SCAFFOLDING CO., LTD.

Imperial House, 80, Regent St., London, W.1
Telephone: Regent 1157

Provision and installation of a hot water heating system at Rainham-rd. depot—

Norman Turner Engineering Co., S.W.1	£512 5
W. Churches & Son, Ltd., Winchester	488 7
Fretwell Heating Co., Ltd. E.13	418 0
Freeman Heating Co., Ltd., W.1	400 0
Watkin Heating Co., Ltd., Westcliff-on-Sea	381 0
Brightside Foundry & Engineering Co., Ltd., S.W.1	355 0
William Edgar & Son, Ltd., W.6	346 10
E. Fitton & Co., Ltd., W.C.1	334 0
Hopes Heating & Lighting, Ltd., W.1	310 0
Magnus Engineering Co., Dagenham	299 0
William Freer, Ltd., W.C.1.	295 0
P. T. Osborne, Upminster	295 0
Westminster Heating Sanitary Co., Ltd., S.W.1	281 0
S. W. Adams, Ltd., Romford	270 0
S. C. Penfold, Surrey	253 12
*Steel & Co., Sunderland	221 10

Hull.—Nursery school, Fifth-av., for E.C. D. Harvey, City Architect:—*Robinson & Sawdon, 97, Alexandra-rd., Hull, £8,180.

Ipswich.—Junior mixed central school to accommodate 440 scholars at Cliff-ln., for E.C. Johns & Slater (F. & A.), architects, 8, Lower Brook-st.:—*G. Robinson, Yarmouth-rd., Ipswich, £21,660.

Leeds.—Works, for Corporation:—80 flats on Camp Fields site, ‡Simms, Sons & Cooke, Ltd., £44,910; hollow block flooring at new operating theatre, electric and massage block at St. James' Hospital, Beckett-street, *Concrete, Ltd., £2,748; internal painting and renovations at males' dining room at North Lodge, *C. Hirst, £127 10s.; mess room, new shelter and store at Bramley Fall recreation ground, *Dunhill Bros., White Horse Works, York-road, Leeds, £490; painting (*a*) 1,150 houses and 12 shops and houses on Halton Moor housing estate; (*b*) 1,268 houses on Parklands, Seacroft, housing estate; (*c*) electrical installations in 88 houses; (*d*) 12 shops and houses, (*e*) 538 houses, (*f*) 524 houses on Halton Moor housing estate; (*g*) 1,268 houses on Parklands, Seacroft, housing estate, (*a*) *B. Jones & Sons, £2,905; (*b*) *W. Palmer (Leeds), Ltd., £2,104; (*c*) *Gallagher & Co., Sheffield, £440; (*d*) *Allenby & Stokell, £134; (*e*) *G. Croft & Co., £2,579; (*f*) *Hall & Stinson, Ltd., Sheffield, £2,510; (*g*) *Hall & Stinson, Ltd., Sheffield, £6,092. (Remainder of Leeds.)

Limerick.—150 houses at Janesboro', for T.C.:—
*P. Molloy & Sons £69,466

London.—Works, for L.C.C.:—
Block 9 on Browning estate, Southwark—

Thomas Bates & Son, Ltd., Barking	£14,473 15 5
Henry Boot & Sons, Ltd.	13,830 0 0
John Knox (Bristol), Ltd., Bristol	13,347 0 0
R. J. Rowley, Ltd.	13,322 0 0
Henry Kent (Builders), Ltd. (after correction)	13,239 10 10
H. & J. Taylor (Contractors), Ltd.	12,587 0 0
Truett & Steel, Ltd., Thornton Heath	12,446 0 0
H. C. Horswill, Ltd.	12,425 0 0
M. J. Gleeson, Ltd.	12,424 0 0
E. D. Winn & Co., Ltd.	12,348 0 0
R. Mansell, Ltd., Croydon	11,982 0 0
Rowley Brothers, Ltd.	11,948 0 0
A. E. Symes, Ltd.	11,827 0 0
W. J. Simms, Sons & Cooke, Ltd., Nottingham	11,547 0 0
*A. T. Rowley (London), Ltd., Cambridge Works, Lordship-lane, Tottenham	11,472 0 0

(Architect's estimate: £12,018.)

Rebuilding of Battersea central schools on the Culvert-road site, including a house for the schoolkeeper—

W. H. Lorden & Son, Ltd.	£53,199 0 0
Halse & Sons, Ltd.	52,926 0 0
Prestige & Co., Ltd.	52,665 0 0
A. E. Symes, Ltd.	52,460 0 0
J. & C. Bowyer, Ltd.	52,125 0 0
John Garrett & Son, Ltd.	52,047 0 0
The Ashford Builders Co., Ltd.	51,937 0 0
Patman & Fotheringham, Ltd.	51,745 0 0
Rowley Bros., Ltd.	51,625 0 0
Fred. & T. Thorn	50,570 0 0
Allen Fairhead & Sons, Ltd., Enfield	50,485 0 0
Galbraith Bros., Ltd.	50,266 0 0
Truett & Steel, Ltd., Thornton Heath	50,106 0 0
Cropley Brothers, Ltd., Church-road, Epsom	49,164 0 0
*(Subsequently amended to)	49,615 10 0

(Architect's estimate: £50,734.)
(Remainder of London.)

¶London.—The following works contracts have been placed by the War Office during the week ended March 17:—
Chichester—clothing store shed—Limpus & Son, Ltd., Kingston-on-Thames.
Perham Down—construction of recreation ground—M. M. Hart, Ltd., London, S.W.
Chilwell—married officers' quarters—F. Perks & Son, Ltd., Long Eaton.
York—married soldiers' quarters—J. W. Maw & Sons, Ltd., York.
Royal Gunpowder Factory, Waltham Cross—constructional steelwork—F. W. Palmer & Co., London, S.W.
Royal Arsenal, Woolwich—laboratory—J. Mowlem & Co., Ltd., London.
Weybourne—roads and sewerage—C. Williamson & Co., Ltd., Beeston.

London.—Works, for M.W.B.:—
24-in. straight steel pipes, together with a quantity of specials, required in connection with main from Fortis Green pumping station to junction of Cannon-hill with Alderman's-hill, north of Broomfield-pk.—
South Durham Steel & Iron Co., Ltd £22,209 4 4
Newport & South Wales Tube Co., Ltd. 21,838 15 4
Clayton, Son & Co., Ltd. 21,753 12 0
Stewarts & Lloyds, Ltd. 21,584 8 0
*Horseley Bridge & Thomas Piggott, Ltd. 20,693 14 10
Alterations and redecorations at 80, Tubbs-rd., Harlesden, N.W.—
S. W. Haines & Bros. £217 3 0
P. R. Atkins, Ltd. 213 15 0
Freeman & Sons 208 18 6
*H. Kerswell 200 0 0
Restoration and reparation of stonework at head office—
Dove Bros., Ltd. £339 0 0
A. Dreyfus, Ltd. 292 15 0
Joseph Dorey & Co., Ltd. 281 0 0
*Palmer's Travelling Cradle & Scaffold Co., Ltd. 278 9 0

London.—New underground conveniences for men and women in Farringdon-st., for City Corporation:—
Walter Lawrence & Son, Ltd. £10,900
Higgs & Hill, Ltd. 10,555
Trollope & Colls, Ltd. 10,006
Holloway Bros (London), Ltd. 9,863
Holland & Hannen and Cubitts, Ltd. 9,417
Hall, Beddall & Co., Ltd. 9,180
L. & W. Whitehead, Ltd. 8,704
*G. B. Farrar & Co. 8,489

London.—Tenders accepted by H.M.O.W. for week ended March 17:—Ministry of Transport Experimental Station, Harmondsworth, extensions to workshop, etc., Sloggetts (Cts.), Ltd., 209 High-street, Hampton Hill; light trailer motor driven pumping units, Solway Pumps, Ltd., 68, Victoria-street, S.W.1, and J. Beresford & Son, Ltd., Cato-street Works, Birmingham, 7; ironfounders' and smiths' materials, Nicholls & Clarke, Ltd., 6, High-street, Shoreditch, E.1; reconstruction of organ, W. Hill & Son, & Norman & Beard, Ltd., 372, York Way, Camden-road, N.7; steel cupboards, Vickers-Armstrongs, Ltd., Powder Mill-lane, Dartford, and Sankey-Sheldon (Harris & Sheldon, Ltd.), 46, Cannon-street, E.C.4; Spilsby Post Office garage erection, J. T. Turner & Sons, Wainfleet; Post Office Stores at 338-346, Goswell-rd., E.C., alterations, F. Troy & Co., Ltd., 194-196, Finchley-road, N.W.5; Post Office Stores 338-346, Goswell-road, E.C., internal painting and cleaning F. Troy & Co., Ltd., 194-196, Finchley-road, N.W.3; Post Office Stores, 338-346, Goswell-road, racking, A. E. Lindsey & Son, Ltd., Lindsey Wharf, N.18; reconditioning and adaptations to racks, Ministry of Labour, Kew; F. Troy & Co., Ltd., 194-6, Finchley-road, N.W.3; Hayle (Cornwall) telephone exchange, erection, E. B. Wright, 58, Edgcumbe-avenue, Newquay; Luton Government instructional factory, Nissen huts, Nissen Buildings, Ltd., Rye House, Hoddesdon; four-wheeled trailers, with interlocking turntables, A.C. (Acedes) Cars, Ltd., Thames Ditton; Martock (Somerset) telephone exchange, erection, D. R. Dunthorne & Son, Street-road, Glastonbury; Bournemouth Station sorting office, superstructure, S. Whitelock & Co., Ltd., Branksome, Bournemouth; Truro telephone exchange and garage, heating and hot water services, The Brightside Foundry & Engineering Co., Ltd., 14-16, Baldwin-street, Bristol; tyres and tubes for light trailer motor driven pumping units, Firestone Tyre & Rubber Co., Ltd., Great West-road, Brentford, and The Goodyear Tyre & Rubber Co. (G.B.), Ltd., Bushbury, Wolverhampton; bronze breeching pieces with instantaneous connection, Knowsley Cast Metal Co., Ltd., Titan Works, Trafford Park, Manchester, 17, and T. C. Enstone & Co. (Succrs.), Ltd., Pyramid Engineering Works, Greet, Birmingham, 11; bow back and Windsor arm chairs, Owen Haines & Son, Green-street Chairworks, High Wycombe; Kingsbridge telephone exchange and engineering accommodation, erection, Nicks Bros., Beacon Works, Bradninch; Candlewick House, 116, Cannon-street, E.C.4, alteration works, Killby & Gayford, Ltd., 87, Worship-street, E.C.2; Alexandra House, Princes House and Pen Corner, Kingsway, alterations and decorations, Moore & Wood, Ltd., 262, Langham-road, N.15; photostat room and covered way at the Admiralty Research Laboratory, Teddington, extensions to the lavatories, Marchant, Hirst and Co., Highgate-road, Kentish Town; Royal Ordnance Factory, Bishopston, lathes, Denham's Engineering Co., Ltd., Empire Works, Holmfield, Halifax, and Holbrook Machine Tool Co., Ltd., 44-48, Martin-street, Stratford, E.15; pigeon hole racks in yellow deal, Duncan Tucker (Tottenham), Ltd., Lawrence-road, S. Tottenham, N.15; nozzles, J. Webb & Co., Ltd., Crescent Works, Hockley, Birmingham, 19; branch pipes, T. C. Enstone & Co. (Succrs.), Ltd., Pyramid Engineering Works, Greet, Birmingham and Hattersley (Ormskirk), Ltd., Ormskirk; coupling adaptors, E. Barber & Co., Ltd., Paxton-road, Tottenham, N.17, and Knowsley Cast Metal Co., Ltd., Titan Works, Trafford Park, Manchester, 17; Pinhoe telephone exchange, Exeter, additions, Soper & Ayers, Magdalen-street, Exeter; new Government offices, Whitehall-gardens, diversion of drains, J. Mowlem & Co., Ltd., 91, Ebury Bridge-road, S.W.1; Industrial Court No. 1, Abbey-gardens, Great College-street, S.W.1, alterations, Marchant, Hirst & Co., Ltd., Builders, Highgate-road, N.W.5; Acton, Ministry of Pensions Issue Office, external and internal painting, G. Jones & Son, 27b, Kensington Church-street, W.8; Oxford Post Office engineers' stores and garage, heating and hot water services, F. Evans & Sons, Ltd., 10 & 12, Gas-street, Birmingham, 1; Bath Employment Exchange, heating and hot water services, etc., G. Carey & Son, Station Works, Lower Bristol-road, Bath.

¶London.—List of new contracts placed by H.M. Air Ministry for the week ended March 19:—Yeadon—underground cable scheme—Building & Colliery Supply Co., Ltd., Doncaster. Yeadon—internal wiring—B. French, Ltd., London. Gosport—alterations and additions to various buildings—John Hunt, Ltd., Gosport. Hooton Park and Speke—artificers' works—James Tomkinson & Co., Ltd., Liverpool. Wyton—various buildings—Thomas Lowe & Sons, Ltd., London. Great Rissington—district heating—G. N. Haden & Sons, Ltd., London. Great Rissington—heating of sheds—Brightside Foundry & Engineering Co., Ltd., Birmingham, 3, Montrose—artificers' works—J. Blake, Aberdeen. Chigwell—clothing of various buildings—William Harbrow, Ltd., London, S.E.16. Aldergrove, Co. Antrim—various buildings—James Miskimmin & Sons, Ltd., Belfast.

Maidenhead.—Extensions to Baddow Cottage, Pinkneys Green, for C. S. Callingham. Harry Osborn, F.F.A.S., architect, Chichester, Victor Martin, F.S.I., quantity surveyor, 32, Shaftesbury-ave., W.1:—*Jones & Sons, Maidenhead.

Manchester.—Reconstruction of the "Gardener's Arms" hotel Moston-ln., Moston, for Boddington's Brewery, Ltd., Strangeways Brewery. George Westcott & Son, architects, 31, Byrom-st.:—
Builders—*E. B. Jones & Rawlinson, Ltd., Manchester.
Terra cotta—*Leeds Fireclay Co., Ltd., Manchester.

Middlesbrough.—Works, for T.C.:—Painting of (*a*) 721 houses, and (*b*) 280 houses, (*a*) *E. Taylor & Sons, Middlesbrough; (*b*) *Hermiston & Lister, Normanby, Middlesbrough; extensions to pavilion in North Ormesby playing fields, *W. A. King & Son, Westbourne-grove, North Ormesby, Middlesbrough; low pressure hot water supply and heating system at new fire station, *G. N. Haden & Sons, York, £1,528 (in lieu of tender previously accepted).

Monaghan.—School at Castleblayney, for E.C.:—
Whelan & Nagle, Dublin £6,456
K. J. Cullen & Sons, Monaghan 5,650
Peter McGeough, Monaghan 5,560
J. J. Smyth, Stradone, Co. Cavan ... 4,893
J. McKenna & Sons, Dundalk 4,550
*Peter Donnelly, Carrickmacross 3,396

Newcastle-on-Tyne.—Maternity unit and connecting corridor at General Hospital, for T.C.:—
*E. Thompson, 12, Grey-st., Newcastle £26,946

Newcastle-on-Tyne.—Rebuilding the "Butcher's Arms" hotel in Shields-rd. Hetherington & Wilson, architects, County-chams.:—
*T. Clements & Son, Selborne-gdns., Newcastle.

Norwich.—Extension to factory, for Bally & Haldinstein, Ltd. Buckingham & Berry, architects and surveyors, 43a, Prince of Wales-rd.:—*R. G. Carter, Ltd., Drayton, £10,500.

Oldham.—Pithead baths at Chamber Colliery Co.'s Wood Park Colliery, Bardsley, for Miners' Welfare Central Fund Committee. J. H. Forshaw, architect, Romney House, Marsham-st., S.W.1:—
*T. Warrington, 51, Bennett-st., Hyde... £5,880
Wall tiling—*Conway & Co., Manchester.
Plumbing—*R. W. Andrew & Sons, Hyde.
Painting—*Dean Stanley, Stalybridge.

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Portsmouth.—Works, for T.C.:—
Alterations and additions to Flint House, Drayton, for adaptation as a Remand Home—
Cortis & Hankins, Ltd. £2,190
Samuel Salter (Portsmouth), Ltd. 2,182
Howe & Bishop, Ltd. 2,108
E. & A. Sprigings 2,076
City Engineer 1,947
A. H. Healy 1,885
*Tanner Bros, (Builders, Southsea), Ltd. 1,875
Sub-stations, in Privett-rd., Gosport, and Copnor-rd., Portsmouth—
*L. Hoad ..... £375 and £417
Heating installation and hot and cold water supply, at proposed new Swimming and Medicated Baths—

	Contract A and B	Contract A and C
Angus & Small, Ltd.	£17,712	£19,068
Donald Smith & Co., Ltd.	16,700	13,600 (withdrawn.)
Ashwell & Nesbit, Ltd.	15,179	15,534
Arthur Scull & Sons, Ltd.	14,700	15,551
Young, Austen & Young, Ltd.	14,410	15,330
Benham & Sons, Ltd.	14,210	14,900
Brightside Foundry & Engineering Co., Ltd.	14,020	14,810
Mumford, Bailey & Preston, Ltd.	13,326	
G. N. Haden & Sons	13,436	*£13,796

A and B include water services and heating mainly by radiators. A and C include water services and heating mainly by invisible panels.

Pwllheli.—68 workmen's dwellings on the Morfa Garreg site, for T.C.:—
*Williams & Williams, Abersoch £28,345

Ross-on-Wye.—66 houses on Three Crosses site, for U.D.C. F. E. C. Davoll, architect and surveyor:—*M. Wilesmith & Son, Malvern Link, £22,468.

Scarborough.—Works, for T.C.:—24 bungalows at north end of North Bay promenade, *F. W. Plaxton, Scarborough; extension of the North Slipway near North Bay promenade, *Direct labour, £250.

Sheffield.—Works, Johnson-st., Stanley-st., and Nursery-ln., for W. Gallimore & Son, Ltd., Arundel-st Fenton & Robinson, architects, 10, Paradise-sq.:—
*A. Bradbury & Son, Cemetery-rd., Sheffield.

Sligo.—136 houses, for T.C.:—
H. Fitzgerald, Dublin £102,664
Samuel Phillips, Dublin 75,286
Robert McCarthy, Ballina 63,971
Molloy, Ballina 58,657
*Kilcawley, Maloney & Taylor 55,223

Slough.—Erection of research laboratory in Wexham-rd., for Imperial Chemical Industries, Ltd. (Messrs. Nobel Chemical Finishes, Ltd.), I.C.I. Estates Department, Architects and Quantity Surveyors:—*Jones & Sons, Maidenhead.

Soke of Peterborough.—Female block, men's dormitory, mortuary and refractory ward at Thorpe-rd. House, for C.C.:—
W. Brick & Sons, Stamford £6,513 10 8
T. Measures 6,466 0 0
John Thompson & Sons, Ltd. ... 6,457 0 0
W. Jellings 6,270 0 0
W. L. Seamer 6,145 13 0
John Cracknell Ltd. 5,955 0 0
†Blood & Kendrick 5,900 0 0

Solihull.—Police house in Widney-rd., for Warwickshire C.C. A. C. Bunch (F.), County A., Warwick:—*Nock Bros., Oakhurst, Stratford-rd., Hockley Heath, Lapworth, £735.

Southampton.—Electrical work at the Central Fire Station extensions, for T.C.:—
F. W. Cook & Co. (Southampton), Ltd. £544 10 0
J. E. Trodd 428 19 3
R. F. Webb 417 0 0
I. Groves & Co. 415 0 0
*B. A. Corry 376 1 7

Southend-on-Sea.—Waiting-hall and works incidental thereto at Municipal Hospital, Rochford, for T.C. Robert H. Dyer, B.E.:—*B. H. Davey, 9, Prittlewell-sq., Southend-on-Sea, £2,781.

Stretford.—Demolishing 1-8, Bennett's-bldgs., 753, 755 and 757, Chester-rd., and 4, 6, 7 and 8, Trafford-view, and clearance of sites, for T.C.:—*T. Maiden & Son, Ltd., Ardwick, Manchester, £119.

Sunderland.—Works for T.C.:—Electrical installation at new Prospect-row junior instruction centre, *D. Taylor, Ltd., Sunderland, £223; electrical installation at new St. John Priestman Library Technical College, *Law & Burns, Ltd., South Shields, £1,281; (*a*) heating installation and (*b*) sanitary fittings in connection with the maternity block at Municipal Hospital, (*a*) *Steel & Co., Sunderland, £1,303; (*b*) *Shanks and Co., Newcastle-on-Tyne, £762.

Sutton.—Extension.—Nurses' hostel and staff quarters, for Governors of the Sutton and Cheam Hospital, Banstead-road. Messrs. William A. Pite, Son & Fairweather, architects, 12, Carteret-street, S.W.1. Quantities by Mr. A. J. Willis, F.S.I.:—
Edser & Brown, Ltd. £12,545
Galbraith Bros., Ltd. 11,155
J. Jarvis & Sons, Ltd. 11,127
Chapman, Lowry & Puttick, Ltd. 10,937
Arthur Bean, Ltd. 10,873
Trollope & Colls, Ltd. 10,743
Foster & Dicksee, Ltd. 10,736
Holloway Bros. (London), Ltd. 10,662
Grace & Marsh, Ltd. 10,654
E. H. Smith (Croydon), Ltd. 10,639
Mullen & Lumsden, Ltd. 10,505
Holliday & Greenwood, Ltd. 10,481
*Geo. Parker & Sons, Ltd. 10,234

Swinton.—Electrical installations at new open-air schools, for E.C. H. Bennett, architect, 1, Chester-ter., Regent's Park, N.W.1:—
*R. W. Christie, Levenshulme, Manchester £170

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Tinnerary.—Technical school at Cahir, for E.C.:—

Costen & Son, Waterford	£7,779
John Hearne & Son, Waterford	6,387
Roche, Morrissey & Kennedy, Clonmel	6,132
Kavanagh Bros., Clonmel	5,011
Lanigan Bros., Limerick	5,897
John Dwyer, Killenaule	5,692
*Martin Fogarty, Templetuohy	5,056

Trimdon.—110 houses, for North-Eastern Housing Association. Tasker & Child, architects, New Bridge-st., Newcastle-on-Tyne:—*W. Forster, Ltd., Bowburn.

Wakefield.—Alterations and extensions to Cardigan Sanatorium, at East Ardsley, for Wakefield and District Smallpox Isolation Hospital Committee. Ledger Holdsworth, architect, 19, King-st.:—*A. Turner & Co., Northgate, Wakefield.

Wakefield.—230 houses on Flanshaw estate, for T.C. S. Hutton, Housing Director:—*George Crook & Sons, Ltd., Henry-st., Wakefield, £86,400.

Wakefield.—Wiring for electricity for 170 houses on Peacock estate, for T.C.:—*H. Goodyear, 239, Batley-rd., Alverthorpe, Wakefield.

Walsall.—Works, for T.C.:—
Community hall and centre, including accommodation for maternity and child welfare department and a branch free library, on Ryecroft housing estate—
*J. & F. Wootton, Ltd., Bloxwich £6,690
20 cottage homes and caretaker's apartments on the Ryecroft housing site, section 7B—
*R. Rix, Shenstone £5,883 4 9

Wandsworth.—External painting works on Council's housing estates for B.C.:—*H. & P. Matthews (62 parlour-type houses, Magdalen Park estate), £201 10s.; *H. & P. Matthews (14 non-parlour and 36 parlour-type houses, Magdalen Park estate), £157 10s.; *H. & P. Matthews (56 parlour-type houses, Magdalen Park estate), £182; *H. & P. Matthews (56 parlour-type houses, Magdalen Park estate), £182; *F. C. Flack (189 non-parlour type houses, Furzedown housing estate), £625; *F. C. Flack (68 non-parlour type houses, Furzedown housing estate), £227 10s.

Wednesbury.—292 non-parlour and four non-parlour houses, also shops, Park-ln., Old Park-rd. and Crankhall-ln. (East) housing estates, for T.C. Arthur Booth (L.), B.S. and A.:—
92 houses, Park-ln., and 104 houses, Crankhall-ln.—
*M. A. Boswell, School-st., Wolverhampton.
100 houses, Park-ln.—
*Eadie & Co., Waterloo-rd., Wolverhampton.

Whitley Bay.—Chalets, for U.D.C. A. J. Rousell, S.:—*Boulton & Paul, Ltd., Norwich, £868. Concrete platform for chalets—*Direct Labour.

Willenhall.—Rebuilding the "Waterglade Inn," adjoining site on Bilston-rd., for Darby's, Ltd., brewers, Greet's Green, Tipton. Scott & Clark, architects, Regent-chams., High-st., Wednesbury:—*J. Hickin & Son, Ltd., 18, Rose-hill, Willenhall.

Willenhall.—(*a*) Installation of hot-water system in 134 Council houses, Summerfield housing estate; (*b*) six bungalows for aged persons, Bilston-ln. site, for U.D.C. G. A. White, E. and S.:—
(*a*) *E. Jones & Son & Collins £1,524 6
(*b*) *N. Hyde, Claremont-rd., Sedgley, Dudley 1,554 0

Wisbech.—Factory in Lynn-rd., for Wisbech Produce Canners, Ltd. H. W. E. Lindo (A.), architect, 37, Panton-st., S.W.1:—
*Walker (Tooting), Ltd., Tooting, S.W.17.

Withington.—Alterations and additions, etc., at Thorndale Farm, Withington, Cheltenham, for Miss F. M. Abell. Healing & Overbury, chartered architects, surveyors, Rodney Lodge, Cheltenham:—*Alfred Groves & Sons, Ltd., Milton-under-Wychwood.

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Wolverhampton.—154 houses, Walsall-st. East, Low-hill and Dixon-st., for T.C. W. B. Robinson, A.M.I.C.E., B.E.:—*J. McLean (Builders), Ltd., Coven, Wolverhampton, £56,500.

Worthing.—Shelter, in West Parade, opposite Seaview-rd., for T.C.:—

Frank Sandell & Sons, Ltd.	£475
W. A. Tree	440
Patching & Co.	426
McKellar & Westerman, Ltd.	425
*F. E. Williams	385

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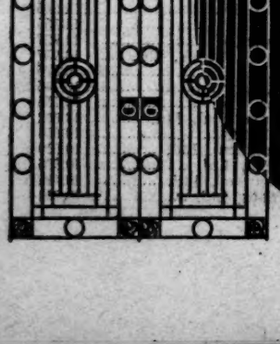

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